

**GERMANY'S
INDUSTRIAL REVIVAL**

GERMANY'S INDUSTRIAL REVIVAL

BY
SIR PHILIP DAWSON, M.P.
M.INST.C.E., M.I.MECH.E., M.I.E.E., ETC.

Second Edition

LONDON
WILLIAMS & NORGATE, LTD.
14 HENRIETTA STREET, COVENT GARDEN, W.C. 2
1926

Printed in Great Britain
First Printed November 1925
Revised and Reprinted November 1926

TO
MY HELPMATE IN LIFE
MY WIFE

PREFACE

I HAVE known Germany intimately for the last fifty-five years, my first recollection being the Franco-Prussian declaration of war, when with my mother I happened to be staying in Düsseldorf; I well remember the arrival of the first French wounded. Part of my early education was carried on in Germany, since when at various times I have spent years at a stretch in the country.

For at least ten years previous to 1914 I felt convinced that Germany had it in mind to destroy us if she could, and said so publicly on many occasions—only to be laughed at, of course. As member of the Disposals Board I have been constantly over to Germany in post-war days, my first visit being in the early part of 1919. In 1922 I became extremely anxious with regard to her industrial and financial position, seeing also how fundamentally it must affect our own country, and after my entering Parliament in that year, Mr. P. J. Hannon, M.P., the Hon.

Secretary of the Industrial group in the House of Commons, and I together passed a strenuous six weeks making the round of all the important German industrial centres. Here, holding conferences in each town, we had the opportunity afforded us of meeting in separate conclave the leaders of finance, commerce and industry, belonging to all sections of the political world; we also had "conversations" with the Trades Union leaders and with the Heads of the various political parties and Government departments.

Since then I have repeatedly paid visits to all parts of Germany, keeping in close touch with the large number of representative and leading personages with whom I am acquainted in that country, and I should like to take this opportunity of acknowledging publicly the frank and conciliatory manner with which our investigations were welcomed, adding thanks to one and all for the generous help universally accorded in order to make our reports adequate and exhaustive. Space does not permit me here to mention each name separately.

Throughout this post-war period I have systematically collected copious data with respect to the conditions in Germany, on behalf both of the Industrial group and of the British Commonwealth Union—of which my friend and colleague,

Mr. P. J. Hannon, M.P., is Director. Certain of my American friends, hearing of this, invited me to write a series of articles to be published in the U.S.A. for the enlightenment of the American public; these duly appeared in *Industrial Management*, January–July, 1925, and this book is based on their groundwork, the information specifically brought up to date after my further visits to Germany in 1924, and in the spring and early summer of 1925.

Portions of the material were also embodied in the *Fortnightly Review* of June and July, 1925, and in the *English Review* of July, 1925. I am indebted to the courtesy of the editors of these magazines for permission to reprint certain paragraphs verbatim.

I could not have found the time to prepare the articles for the American press and to write this book but for the valuable assistance I have received from Miss Violet A. Simpson, B.A., whose great experience, gained as literary assistant to the late Mr. Andrew Lang—her talent as a writer and her knowledge of foreign languages serving our country so well during the War whilst she was working under the Directorate of Special Military Intelligence—has proved invaluable to me in this undertaking. The book is a study of the course of Inflation and its inevitable results,

together with as careful and balanced an appraisal as I think it possible at this stage to make of the present conditions and probable future development of industrial Germany—a development which calls for our most critical consideration.

In conclusion I wish to record my sincere thanks to those gentlemen of our splendid diplomatic service at the Foreign Office, the Board of Trade—in particular the Department of Overseas Trade—the Board of Agriculture, and to my colleagues generally in public life, who in their official capacity have rendered me so much assistance in the verification from our own records of facts and statistics. I hope that as I am not able to mention them all by name they will accept this grateful acknowledgment of help most courteously given.

PHILIP DAWSON.

House of Commons
August 1925.

CONTENTS

CHAP.	PAGE
I. ADMINISTRATION, IN IMPERIAL GERMANY— PRE-WAR POLICY, 1870-1914	1
II. POST-WAR ADMINISTRATION—FISCAL POLICY .	16
III. POST-WAR ADMINISTRATION—ECONOMIC RE- SULTS OF FISCAL POLICY	54
IV. POST-WAR ADMINISTRATION—ECONOMIC RE- SULTS OF FISCAL POLICY (<i>continued</i>) . . .	69
V. POST-INFLATION PERIOD—FISCAL AND ECO- NOMIC POLICY	95
VI. POST-INFLATION PERIOD—FISCAL AND ECO- NOMIC POLICY (<i>continued</i>)	119
VII. POST-WAR ADMINISTRATION—DEPARTMENTAL LEGISLATION—INDUSTRIAL AND FOREIGN POLICY	138
VIII. POST-WAR ADMINISTRATION—DEPARTMENTAL LEGISLATION—INDUSTRIAL AND FOREIGN POLICY (<i>continued</i>)	161
IX. TRANSPORT SYSTEM IN GERMANY, PRE-WAR AND POST-WAR	180
X. SOCIAL CONDITIONS IN GERMANY, 1920-1925 .	209
XI. GENERAL SURVEY OF PRESENT CONDITIONS— SUMMARY OF PRECEDING ARGUMENTS— POLAND—THE CORRIDOR—SILESIA . . .	232
INDEX	267

GERMANY'S INDUSTRIAL REVIVAL

CHAPTER I

ADMINISTRATION IN IMPERIAL GERMANY PRE-WAR POLICY, 1870—1914

Industrial—Economic—Rise of Shipping, Coal, Steel, and Iron Industries 1870–1914. State Support. Mentality and Methods of German Business Men—Intimate Co-operation of Finance and Industry. Influence upon Foreign Trade—Amalgamation. Interchange. The Cartel System.

No inquiry into the conditions at present obtaining in Germany, her progress towards rehabilitation, and her endeavour to revive foreign relations, would be complete without a survey of German pre-war methods industrially and economically.

Is Germany on the high road towards building up her trade again? How? Is she working on past traditions? Then what were they? Are her post-war efforts dictated by a reversal of previous policy or an adaptation of them founded upon the experiences of the war?

All competing countries must ask and require an answer to these questions. The future of Germany will most surely—more than would be

2 GERMANY'S INDUSTRIAL REVIVAL

the case with any other country—be the outcome of her previous mentality and methods, for no country has ever made such rapid progress industrially and economically as Germany did after the War of 1870. Are we about to witness history repeating itself? We must at least be prepared to do so.

Up to 1914, the economic progress of Germany was truly miraculous. In coal production the advance of Great Britain, France, and Germany, respectively, was as follows :—

	<i>United Kingdom.</i>	<i>France.</i>	<i>Germany.</i>
1875	99,760,000 tons	11,840,000 tons	28,330,000 tons
1913	287,410,000 „	40,190,000 „	273,650,000 „

As to the shipping owned, the tonnage compares thus :—

	<i>United Kingdom.</i>	<i>France.</i>	<i>Germany.</i>
1875	7,380,000 tons	1,028,228 tons	1,084,882 tons
1913	20,009,819 „	1,628,790 „	5,679,467 „

With regard to the production of pig iron and steel we have :—

	<i>United Kingdom.</i>	<i>France.</i>	<i>Germany.</i>
1875	6,365,462 tons	1,448,272 tons	2,029,389 tons
1913	10,260,000 „	2,690,546 „	14,389,852 „

And with regard to the production of steel ingots and castings :—

	<i>United Kingdom.</i>	<i>France.</i>	<i>Germany.</i>
1875	707,754 tons	223,467 tons	242,206 tons
1913	7,835,113 „	2,655,854 „	14,946,212 „

The idea of Germany as a competitor to be seriously reckoned with in the steel industry was first given to the world by the fine exhibition of steel castings and forgings shown by Krupps in 1851 at the First International Exhibition in Hyde Park, although in 1875, before the complete nationalisation of the German railroads, a large number of English-built locomotives were still to be seen on all the railroads; while for a considerable time after the great development of the Hamburg-American and Nord Deutscher Lloyd the bulk of the orders for steamers was placed in the United Kingdom.

Bismarck's policy of tariffs marks the initial step in Germany's industrial leap forward. The next was taken when the German Government introduced the system of preferential railroad rates for export through German ports. Note how German enterprise was backed by Germany's Government—a policy consistently maintained up to 1919.

Observe also how German methods of education, and the adaptability of the Germans in combining with and learning from foreign countries, have been contributory to their success. German young men have always been ready to accept the humblest positions in foreign firms, more especially in England and the United States, where by their

4 GERMANY'S INDUSTRIAL REVIVAL

painstaking industry, docility, and willingness to work at lowest rates they won the confidence of employers, and so were given opportunities for gaining insight into the markets and world requirements, together with the selling prices of every kind of manufacture with which their principals were dealing. Incidentally they acquired an excellent knowledge of the English language, as also of the business methods and customs obtaining in various parts of our Empire. Taking advantage of the developments in their own shipping lines, which were meanwhile doing their utmost to cater for the convenience and comfort of customers, they travelled extensively, so that before the war there was practically no country in the world in which German merchants and commission agents were not to be found.

Whilst keeping in closest touch with their fellow-countrymen, they made a point of mixing, far more than is our habit or that of most other residents in foreign lands, with the inhabitants of the countries in which they were. They were coached to ascertain the peculiar and exact requirements of the people in different localities, and their German principals, so far more flexible than our British manufacturers, did all in their power to supply these. With true German audacity, data were collected and made accessible to their

fellow-countrymen through German technical journals and publications. The German agent or merchant meantime was usually much more frugal in his manner of living than the English, and also showed himself ready to work on much lower margins of profit, the result being that the Germans were able successfully to undercut us with regard to various articles of commerce in most markets of the world.

The German Embassies all over the world made it one of their main duties to assist the German industrials, and to encourage and push them whenever or wherever possible. Diplomatic pressure was constantly applied to induce the placing of contracts preferably with German firms.

The inventions of other nations, such as the electric incandescent lamp, the steam turbine, the electric generator, motor and machine tools, were taken up and developed. The application of German critical scientific research brought in the incandescent gas mantle, the Osram metallic filament lamp, and the gas-filled lamp. The development of the gas engine and of the petrol engine is due to Germans—Messrs. Otto and Daimler. Aniline dyes, first discovered by an Englishman—Sir William Henry Perkin—were taken in hand by Germans till the industry was practically monopolised.

6 GERMANY'S INDUSTRIAL REVIVAL

The German Banks, which differ considerably from ours in their constitution, soon realised the importance and money-making possibilities of these industrial undertakings, and backed them, not merely by loans, but by becoming *de facto* shareholders on a big scale, buying in large blocks of shares as intermediaries, so to speak, until such time as the public was ripe to buy. The principle of working to mutual advantage underlay both industrial and banking policy, each board of management admitting representatives from either section. Most of the manufacturing concerns initiated new enterprises in which they themselves only participated to a slight extent, but which were financed by the respective banks singly or in groups—the manufacturers meantime securing cash orders. The undertakings having been worked up and having produced results by earning dividends on their capital, it was easy to dispose to the public of the stock held by the banks, whose funds thus replenished were ready for reinvestment in fresh ventures. Meantime the hold the industrialists had secured on the undertaking by initiation, organisation, and representation on the board, was always sufficient for them readily to obtain further orders for any desired expansion in the direction of plant, machinery, and supplies.

The experience thus gained enabled the German

firms to be quite certain of the results which might be expected under given conditions, and also even to be prepared in some cases to equip out-of-date concerns with modern plant solely on the basis of payment by results.

The capital required during construction, and until such time as an undertaking became remunerative, was obtained on the principle of the German banks borrowing on the security of their own investments—and at very low rate of interest—from foreign and more particularly from French and English banks. In evidence and as examples of the results achieved by these methods may be cited the electrification of the Anglo-Argentine and later of the Buenos Ayres City tramways by the A.E.G. Co. of Berlin.

The electrification of the Buenos Ayres and Belgrano tramways by an English group opened the eyes of the Germans to the possibilities of this mode of traction in South America. The A.E.G. secured the control of this corner by purchasing, above the then market price, a large packet of shares which were being held by the Bank of England as security against a loan which it had made to Barings, shortly after this bank had got into difficulties. They then purchased a sufficient number of shares in the open market to give them control of the company.

8 GERMANY'S INDUSTRIAL REVIVAL

Having done this, they called the shareholders together, and offered to convert the ordinary stock into a higher yielding preference share, interest on which the A.E.G. guaranteed for a period of years. The preference shares they turned into debentures with a higher yield, and then created new ordinary shares which they themselves accepted at par in payment of their contract to electrify the whole of the lines. It was also made a condition that if any further electrifications were undertaken within the next few years, the A.E.G. should have the right to the work, being paid in further ordinary shares at par, to be created for that purpose. The work was hardly completed when the results were such as to cause the shares to double and treble in value. The Company took over new Buenos Ayres City lines, which they electrified, and the shares paid over for this and taken at par were actually disposed of in the market at two and three times their face value—so that within four or five years, in addition to the ordinary contract-profit, the A.E.G. and their banker-group had cleared many millions of pounds, further securing for the future large orders for their materials and supplies. In the same way they carried out the erection of the larger power stations in the Rand, for the Victoria Falls Power Co.

The money for the work was obtained by the German banks as a loan from English banks. The debentures were afterwards all sold in this country—as were most of the other shares which went to the German manufacturers and banks. So that the work carried out by British money—a good investment for a short period for our English banks—not only secured the contracts, but also all the contingent profits to the German firms enterprising enough to undertake the required conditions and risks. In like manner, and on the same principle, these German firms carried out the electrification of steel works and mines, guaranteeing results and taking payment in shares, which their bankers took up and disposed of once the results of the concession became effective and increased the working profits of the respective concerns. No prospectuses were issued in any of these cases—and there were no public flotations. The business was put through by the banks, and the shares only reached the public when the actual results had become apparent, with a consequent justifiable rise in the value of the stock. French, Swiss, Italian, Austrian, Dutch, Swedish, and other banks frequently participated in such undertakings promoted by German industrialists. The companies created by the Germans in foreign countries were invariably local and national, in

10 GERMANY'S INDUSTRIAL REVIVAL

which local and national capital and management participated, and which for this reason had the goodwill of the country in which the undertaking was carried forward. As pointed out, the Germans had deliberately meanwhile acquired an intimate knowledge of the laws and customs of the respective countries, and in most cases their representatives were able to take part in all discussions and to hold the meetings in the language of the particular country.

The Germans further possess, to a considerable degree, the ability to form successful amalgamations and combinations of interests. They rarely overcapitalised their ventures; they relied more on big earnings, thus gaining the confidence of their shareholders, who were willing therefore to accept any call for fresh capital required. And if for any reason this was difficult, the banks took the shares themselves, holding them till such time as they could be safely disposed of to the public. Again—in order the better to secure co-operation and community of interests, large concerns interlinked their businesses by each taking over considerable packets of the other's shares, arranging at the same time for an interchange of directors and members of the management committees.

These management committees all consist of men who are specialists in the particular business.

They are required to give their whole time to it, and they are largely paid by results. If these justify it they earn very considerable amounts—which no shareholder grudges them. Their emoluments are practically always on the basis of payments by results; but in some cases are *plus* salary.

Meanwhile competing concerns did not hesitate to combine in order jointly to exploit new inventions, or to form joint purchasing or selling organisations for mutual benefit.

This interchanging has become even more marked since the war, and is tending to a certain extent to take the place of cartels—*i.e.*, manufacturers' associations for the regulation of prices. And in this connection it should be noted that the character of the German cartels has somewhat changed in consequence of post-war conditions. As we shall see, industrial combinations have been formed resulting in the creation of large individual concerns, and owing to these combined undertakings coming under single direction, the tendency towards the formation of cartels has in some degree weakened.

Every cartel is a voluntary association of individual undertakings. The participants in a cartel are unequal in wealth and strength; co-operation therefore is not easy. There are also certain tasks which an individual business man, or

12 GERMANY'S INDUSTRIAL REVIVAL

an individual undertaking, can solve, which is bound to prove difficult when handled by a voluntary association where control and responsibility for direction are divided.

Thus, although it cannot as yet be said that cartels and similar associations are decreasing in number, a certain stagnation in the organisation of cartels and cartel-like bodies is noticeable.

It is the insecurity of the present economic conditions which has led to these various combinations and mutual-system arrangements.

For instance, owing to the risk run in consequence of the great fluctuations in the exchanges which may at any moment convert an apparent profit into a loss, endeavours have been made to conclude arrangements regarding the conditions under which goods should be furnished and payments effected; and such organisations strive to include all firms which carry on a similar kind of business.

The cost, however, of production frequently varies so greatly among the different undertakings which have organised themselves on a cartel-like basis, that co-operation of the united interests is often endangered. Cartels are unwieldy bodies and co-operation has its limitations—particularly in difficult times. Individual business heads of firms may rapidly make use of momentary chances, and conclude profitable deals in raw materials,

operate in foreign exchanges, etc., and here, in view of the temptation to act quickly and independently, the bond created by the cartel becomes an irksome fetter.

Nevertheless, organisations possessing a cartel-like character, such as those which deal with prices which have risen in various industries, remain very numerous.

The national union of German industries, the *Reichsverband der deutschen Industrie*, has found it advisable to create a special office in which the differences arising between producers and customers with regard to the conditions of delivery, payment, etc., are adjusted; upon it also devolves the duty of enlightening the public with regard to the necessity of introducing stricter conditions of delivery and payment. This office was instituted as the result of a demand which was made within the Reichstag for legislation whereby the abuses of the cartels should be checked. The State was called upon to control these associations. So far no controlling legislation has been passed, however, because the leading organisations representing both industry and commerce undertook to deal with the abuses in their own way. It was in order to strengthen this voluntary supervision and control, that the special Government office mentioned above was founded.

14 GERMANY'S INDUSTRIAL REVIVAL

The German cartels are chiefly important with regard to domestic business. With respect to foreign trade, their influence is not so great because this stands more or less under the direct supervision and control of the various Government departments and organisations.

Certain points of interest stand out from the foregoing discussions which are of noteworthy importance to the industrialists of other countries.

First, the support which in pre-war days the Germans got from their banks, not so much in the shape of short-term loans, but in the finding of capital for the enlargement of their own undertakings, or the formation of new ones. This enabled the German firms to give long credits in foreign countries—credits which few British firms could or cared to afford.

Secondly, the fact that the German policy during the war, in contradistinction to that pursued by this country, was not to foster the creation of all kinds of new enterprises, but to encourage the development and expansion of concerns already established on a large scale and sure footing. There was no excess profit duty to hamper them in this. Nor was it any part of their scheme of war organisation to create Government factories: much dislocation of business was thereby saved.

And finally—three special factors in Germany's

successful rise in the past force themselves upon our notice to-day for consideration: the steady support given to industry' byⁿ legislation and diplomacy; the extraordinary degree of efficiency in the system of co-operation between industry and finance; and the *personnel* of employers and employed—in other words, the particular combination of German mentality *plus* German method in the arena of business.

. In the next chapters we shall criticise, in the light of what we see has created pre-war Germany, the conditions obtaining in the country from the close of hostilities to the present day.

How far do they militate for or against the continuance of the same successful policy?

CHAPTER, II

POST-WAR ADMINISTRATION

FISCAL POLICY

Political parties—Relations between State and Industry—Policy of Wirth Government—Communism—Socialism—Attitude of Trade Unions and Christian Socialists. *Fiscal policy* :—Erzberger's policy—Central Control of Taxation, Railways and Ports. Inflation—Economic Results on Foreign Relations of Depreciated Currency—On Domestic Conditions—On Middle Classes—Rent—Interest—Taxes—Savings Banks—Bankruptcies—Banking—Stock. Question of Reparations. Under-production Root Cause of Economic Difficulties.

LET us first consider the changes in the German Administration from the fall of the Imperial system of government, examining in detail the fiscal policy with its attendant results—both internally and with respect to international obligations. We shall be dealing at length in a subsequent chapter with the industrial policy of the Administration from 1918, but it is necessary to allude here to the status of its Industrial representatives, in order to make quite plain the degree of their responsibility for the fiscal position created; and also to indicate how far in the future Industry may be able to look to the State for support at home and abroad—as in pre-war days.

There are nine political parties in the Reichstag to-day, representing every shade of opinion, though it is difficult to say how far the real temper of the country finds true expression, since the electoral system obtaining in Germany of proportional representation whilst right in principle is misleading in practice.

First then, however, we have the National-Socialist Liberty party (*National-sozialistische Freiheits-partei*), composed of the Radical elements from all classes. It is the central rallying point for the Bavarian and Mecklenburg parties; the main support of the national *Wehr-verbände*; monarchist, militarist, and absolutely anti-Semitic in sympathies. Its economic programme bristles with contradictions, with a leaning towards Marxism.

The German National Volkspartei (*Deutschnationale Volkspartei*) is primarily recruited from the ranks of the agriculturists, ex-officers, officials, professors, and a certain section of the representatives of the Heavy Industries. Avowedly monarchist, but not by any means entirely pro-Hohenzollern, it is out to challenge, though by strictly constitutional methods, any proposed alterations in the existing form of government. It cannot therefore really be reckoned as an Opposition party. Many and varied opinions are

18 GERMANY'S INDUSTRIAL REVIVAL

represented, but on economic questions the party is one in resistance to higher taxation, especially on property. At the last election in 1924 it united with the German Nationals: and has in any case a strong agrarian substratum, its mainstay being the Landbund.

In the German Volkspartei (*Deutsche Volkspartei*) we have a party outstandingly representative of Industry. As regards economic questions, it is opposed to the present system of taxation, and to all attempts to influence economic developments by legislative measures.

Opinion is divided as to the form Government should take; the majority of the members are Monarchist, but generally speaking this particular issue is not of paramount interest. Dr. Stresemann plays a leading part and most important rôle in the party; and very great influence is exercised generally on the Press through members' proprietorship of various papers.

The party is at present entirely anti-Socialist, but not anti-Labour nor even Social-Reactionary, and calls itself the *Rechts-partei*.

The German Economic party (*Deutsche Wirtschaftspartei*) represents the middle classes, i.e., artisans, householders, and owners of property generally, and was founded mainly to combat economic delays, compulsory economic measures,

and high taxation—the turnover tax in particular. Politically it leans ostensibly towards the German Volkspartei, but in reality stands somewhere between this and the German National.

The Centre party (*Zentrum*) has for its uniting bond the Catholic Church. It is not homogeneous as regards its economic outlook, and is drawn from all classes. Where purely economic and purely political questions are concerned it divides into a definitely Right and definitely Left Wing. The strength of the party lies in South and West Germany. The Labour members are organised up into the so-called Christian Trade Unions, which play an important part in the Mining Industries.

The Bavarian Volkspartei (*Bayerische Volkspartei*) is the former Bavarian Centre party. Agrarian and wholly Monarchist, it works for a new monarchy—to be derived from the House of Wittelsbach.

As seventh on the list comes the German Democratic party (*Deutsch-demokratische Partei*). Openly and avowedly progressive, this is overwhelmingly representative of trade and a certain section of the professional classes. In economic questions the party adopts a midway position between a more definitely liberal Wing—voiced by the *Berliner Tageblatt* and Theodor Wolff; and

20 GERMANY'S INDUSTRIAL REVIVAL

a more strictly constituted economic one with socialistic tendencies, as represented by the *Vossische Zeitung* and Georg Bernhard.

All members are Republicans and strongly pacifist: Koch and Erkelenz are the recognised leaders. Of late the party has sadly lost ground owing to this see-sawing attitude and internal dissension.

The United Social Democratic party of Germany (*Vereinigte Sozial-demokratische Partei Deutschlands*) has evolved from the amalgamation of certain elements of the German Social Democrats (Majority Social Democrats) with the Independent Social Democratic party. Wholly Socialist, it is yet opposed to dangerous Socialist experiments, and is far more constructive than destructive in its policy, being also strictly republican and anti-militarist. The socialistic ideal of the Erfurter programme ostensibly still stands as the watch-word of the party, but without any active social upheavals being contemplated by the majority of the leaders. The party gained considerably by this amalgamation, because Labour has itself more or less abandoned the theory of Radical Socialist changes, and is bent instead on materialising those of definite and everyday importance to itself. A very strong Left Wing, incorporating the greater number of the members of the original

Independent party, makes the V.S.P.D. carry real weight.

Lastly we have the Communist party, which represents the extreme Radical section, and includes all Labour malcontents.

Supported, encouraged, and financed from Moscow, the party has obtained a quite disproportionate foothold amongst German working-classes.

Since Germany adopted a parliamentary form of government, the relations between State and Industry have somewhat altered in character. The present (1924-5) Administration is drawn from the German Volkspartei, the German Democratic, and the Centre party, each represented in the Reichstag by Industrial members. The German Volkspartei indeed claims especially to represent Industry, but for the moment concerns itself mainly with the question of retrenchments; and meanwhile a contingent representing the Heavy Industries has openly linked up with the National Liberals, which party has itself broken away from the German Volkspartei to lean strongly towards the German Nationals. This section of the Industrialists is, with the German Nationals, in opposition to the present Government.

The Administration has undoubtedly all along been faced with exceptional difficulties. Its efficiency generally, and in dealing authoritatively

22 GERMANY'S INDUSTRIAL REVIVAL

with public emergencies, has been definitely weakened by the limitations affecting troops and armaments imposed on it by the Allies. Ministers as well as heads of Local Authoritative bodies are emphatic in their feeling of hopeless inability to cope with any violent outbreak or serious rioting. The undoubtedly stringent circumstances of great masses of the people, coupled with the dread of unemployment, constitute dangers which have been and still are considered by many responsible Germans as tending towards a second revolutionary upheaval. The executive Authority would be practically powerless in dealing with an organised rising on an extensive scale, as there are few troops available and the Civil Guard are but imperfectly armed.

By the end of 1921 the vigour of immediate post-war Communist propaganda had, it is true, considerably abated owing to the complete collapse of that *régime* in Russia, but the representatives of the Third International have continued quietly conducting an intensive campaign, and would no doubt be in a position to stir up very grave unrest to-day should there be unemployment on any large scale. The policy of the Wirth Government was mainly dictated by the Majority Socialists, and at that time it was apparently the anxious determination of the Government itself, as well as

of municipal and private employers, to maintain the largest possible *personnel*, in order to escape as long as might be this menace of another revolution. In Breslau—more particularly—where circumstances of peculiar difficulty had arisen in consequence of the cession of a large part of Upper Silesia to Poland, there was intense anxiety lest any dislocation in local industry should be immediately followed by a general disturbance, if not the establishment of some form of Soviet *régime*. On the other hand, it is noteworthy that in the many interviews which the writer has had during the past five years with representative Trade Union leaders—such as Stegerwald—from all branches of industry, and who voiced the views of Majority, Minority and Christian Socialists, there was no evidence whatever on the part of the workers of a desire to throw over a system of ordered Government in favour of an experiment in which they themselves would be supreme. Indeed, on the contrary, it was quite clear that the more intelligent and influential of the leaders of the working classes were anxious to maintain some settled form of Government, provided that what they regarded as the claims of the wage-earning classes were adequately considered. Not only so, but in point of fact many Trade Union leaders stated—and this was the leading characteristic

24 GERMANY'S INDUSTRIAL REVIVAL

of the attitude of all the Christian Socialists—that in order to secure a strong and well-established Administration the workers would even be prepared to bear the burden of further hardships and privations—such as they knew must inevitably result from a definite attempt to stabilise the currency, and bring about a more healthy economic life. And, as we shall have occasion to show presently, the attitude of employers and employed at this present phase of their relations—1925—fully bears out these statements. The general conclusion, drawn from a continued and careful study on the spot of German economic conditions, does not lead one to agree with the universally expressed fear of the governing and official classes that Bolshevism might be likely at any time to make serious headway among the German people. On the contrary, after having taken every available means of checking the accuracy of the observations made, the opinion definitely arrived at was that whilst the main masses of German workers would not tolerate the restoration of the Monarchy, they are at least in equal degree antagonistic to Socialism—with all that that term implies—as a system of Government. It may be recalled that the attempts to organise a gigantic demonstration of Communists in Berlin in August, 1920, when Communist influence was at its height, ended in

hopeless fiasco. Forty-two thousand delegates from all parts of Germany were expected to be present, but as a matter of fact only about one thousand came, and these, with the exception of a few really responsible leaders, had no personal influence.

At the 1924 election the Communist *Reichstagsmandate* was 45.

The Administration is practically entirely in the hands of the old German Civil Service, and it can easily be understood that this implies no small volume of attachment to the Monarchical *régime*. German trade unionists, and indeed many German merchants and manufacturers also, seem to think that there may be as much danger to the future of Germany from constant tendency towards the Right with the whole influence of the permanent Civil Service behind it, as from any development on the part of the Socialists towards a subversion of the Republican form of Government. It is true that since the bulk of the German people before the war were—with the exception of the old Liberals—politically uneducated, obeying orders, but with no political views or interests of their own, the result of the present liberty to take a part in determining the form of administration might well be feared, if only as an unknown quantity. But it was certainly borne in upon the

26 GERMANY'S INDUSTRIAL REVIVAL

writer during visits to Germany in 1920, 1921, 1922, 1923, 1924 and 1925, after intimate conversations with leading Communists and Socialists, that they put their country before party or private interests. And while, in 1923, the fear of collapse under the then considerable strain was keen and definite, yet all political parties—except the Communists—united in saying that once the questions of the Ruhr and Reparations were settled, the Government would be backed by the whole of the nation in the establishment of a system of drastic taxation, vigorously enforced.

It was the conviction that Stinnes was not politically single-eyed, which cost him his position as leader of the German Volkspartei.

Certainly we can see now (1925) how the co-operation of the People's party, Democrats, Centre party and Social Democrats has forwarded Germany's interests as against the subversive measures of the Junkers.

That Germany should definitely take in hand the question of taxation was absolutely necessary for her internal stability, and her meeting the Entente on the questions of Reparations and the Occupation has been to her own interests. On these two subjects of supreme importance there is more presently to be said—meanwhile a short review of the financial policy of Germany's post-war

Government from 1918 and the establishment of the Republic is necessary as basis for discussion.

Naturally the Department of Finance has been beset with peculiar difficulties since the Revolution. The depreciation of the mark completely disorganised the pre-existing methods of collecting revenue, and one cannot help feeling that the Ministry of Finance, either by design or by an incomprehensible lack of capacity to judge the consequences of continued inflation, did not deal with the financial problems confronting them with that clearness of vision which would have impelled immediate and practical effort towards stabilisation, or at all events a steadying of the downward flight of the mark.

Erzberger, whatever his failings (and many Germans in high places are inclined to accuse him of dishonesty), showed very considerable ability as a statesman. He carried the country successfully through the revolutionary period and gave Germany a stable Government. True it was not a very strong Government; but it was certainly capable of guiding the country through its difficulties and of laying the foundation of an understanding with the Allies, if it had only received the support of the official, landed, and manufacturing classes. Erzberger, moreover, succeeded in bringing the control of taxation into the hands of the Central Government, and achieved the one great

28 GERMANY'S INDUSTRIAL REVIVAL

thing upon which the unity of Germany depends, namely, that the direction of the railways and the management of the ports should be under the Reichstag.

The reason given by Germans for the fact that Germany did not adequately tax herself during the war was that the main powers of taxation were vested in the individual States, and that during the conflict the Reichstag could not take the risk of bringing in measures for the introduction of centralised control of taxation. Previous to the revolution, the railways were also managed by the individual States, and Erzberger's achievement of unifying the railway administration has been, and is still, a most powerful factor in maintaining the integrity of the new German Republic.

Taking German Administration generally one may conclude :

(a) That while considerably overmanned, its efficiency is still very great, but that owing to the political weakness of the Government there is grave lack of effort and enthusiasm in conducting the Public Services.

(b) The Railway and Postal Services, while comparatively satisfactory, show a decided falling off in the alertness and competency of the *personnel* of these Services as we had experience of them before the war.

(c) The Civil Service has become so much identified with politics, and exercises so much political influence, that it would need the strong hand of a powerful administration to make railways and post office really important contributory factors in the revenue-earning power of Germany.

At almost every stage of investigation from 1918 to the present date the fact is indubitably brought home that those responsible for the economic policy of the country following upon the Treaty of Versailles, adopted a deliberate plan whose aim was the destruction of German credit through the inflation of the currency. After constantly renewed conversations with the leading financial, industrial, and agricultural magnates in every great German centre, it is impossible to doubt that they had one and all made a calculated, co-ordinated effort to ruin the credit of their country in order to secure discharge from their war obligations.

Indeed, Stinnes—for one—was openly held by the mass of the German people to have played in this matter especially for his own hand, and to have been responsible for the fall of the mark and resultant position of Germany.

No doubt those who were responsible for the policy blundered extraordinarily badly, for they had all contemplated a stopping place in the mad

30 GERMANY'S INDUSTRIAL REVIVAL

career of inflation once the objective had been attained; no one anticipated weakening German competitive power in the foreign markets to any serious extent. One or two of the more frank of the great German leaders openly owned that the attempt to evade reparations by this carefully manipulated process of inflation had reacted disastrously upon those responsible, and brought the whole country to the present economic crisis.

During the war, the Imperial Government wished to keep the people in good humour. Practically no war taxes were imposed. The campaign was financed with money borrowed in Germany. The voice of criticism was certainly heard, but official spokesman declared that Germany's defeated enemies would be made to pay the whole cost of the war; also that the German nation could not be expected to fight to the utmost of its power and bear at the same time a vastly increased burden of taxation. Almost up to the last the German people were kept under the delusion that Germany was bound to win.

In November 1918 came the revolution. Monarchical Government disappeared; Democracy and Socialism came into power. The Social Democratic party (Socialists) who took over the government of the country had been telling the nation for years that a democratic administration would

bring in its train all imaginable blessings. Its advent was therefore greeted with general joy, and it was expected that notwithstanding the loss of the war the nation would now enter upon a pleasant era of ease and prosperity.

Unfortunately, the new rulers of Germany were largely politicians who had little experience of administration. They wished to make themselves popular, and immediately proposed to increase salaries, wages, pensions, and subsidies on a lavish scale—besides other advantages. Working hours were to be legally reduced, intermediate and university educations made accessible to the poorest, and so on. Little thought was taken as to how the means for this expenditure were to be found or how the reparations payments for which the nation was responsible were to be made. In accordance with Democratic and Socialistic theories, the rich were to provide for all by high taxes put upon capital and income. It did not occur to the new Government that greater prosperity means increased consumption, and that increased consumption is only possible if there is at the same time an increase in production.

Up to the time of the revolution, Germany was divided for taxation purposes into a number of States which financially were more or less independent. When all these States were swept

32 GERMANY'S INDUSTRIAL REVIVAL

away it was decided that Germany should be made a single State under a single authority, with a single system of railways, taxation, and so forth. The Administration therefore resolved upon a two-fold reform. First, to scrap the existing financial organisations of the various States in favour of a single organisation, collecting revenue on behalf of the Reich. Secondly, to replace many of the existing national and local taxes by new national taxes of a more democratic nature.

The mere fact of breaking up the existing revenue-collecting machines and substituting a brand new National one, led to a great deal of discontent and confusion. That confusion was, of course, very greatly increased when many of the existing taxes were scrapped and fresh ones instituted. The new rulers of Germany were not liked by the bureaucrats of the old *régime*; many of them did their best to prevent the new revenue laws from becoming a success. Active and passive resistance was widespread. That resistance has not by any means ceased, and herein lies one of the greatest difficulties of the Administration.

The Republican Government could not begin working at once. A new Constitution had to be discussed and adopted. Elections were necessary. There were riots and revolts. Much time was

spent in examining general principles of organisation and legislation. So it came about that the new revenue laws, which ought to have been passed promptly, were debated with great dilatoriness, whilst national expenditure went on increasing by leaps and bounds. In order to provide the necessary money, the printing press was set in motion. Banknotes were printed in ever-increasing numbers, for delay was dangerous—the people were clamouring for higher pay, cheaper food, and so on. Thus the era of wild inflation began.

Before the war, German finances were managed with great prudence and frugality. During and after the war a spirit of absolute recklessness prevailed. Many of the more far-sighted politicians and business men viewed the increasing disorder in the national finances with grave apprehension. They were silenced, however, by those who maintained that money had to be found at once and by any possible means. Inflation, far from immediately proving ruinous to the national industries and internal commerce, turned out to be—for the moment, at least—a tremendous stimulus to both. The industrial magnates recognised that they would benefit mightily by further inflation; also that inflation would, at one and the same time, enrich them and produce an appearance of national poverty and insolvency whereby

34 GERMANY'S INDUSTRIAL REVIVAL

the payment of Reparations could be made to appear impossible. In the opinion of leading financiers and other highly responsible persons, it was a most powerful weapon with which the claims and intentions of the Entente might be defeated. Thus large classes of the nation were determined to push the process to its utmost capacity.

The progress of inflation may be visualised by the following figures :—

	<i>Gold stock of the Reichsbank.</i>	<i>Reichsbank notes in circulation.</i>
31 Dec., 1913 . . .	M.1,170,000,000	M.2,593,000,000
31 Dec., 1914 . . .	2,093,000,000	5,046,000,000
31 Dec., 1915 . . .	2,445,000,000	6,918,000,000
30 Dec., 1916 . . .	2,520,000,000	8,055,000,000
31 Dec., 1917 . . .	2,406,000,000	11,468,000,000
31 Dec., 1918 . . .	2,262,000,000	22,188,000,000
31 Dec., 1919 . . .	1,039,000,000	35,698,000,000
31 Dec., 1920 . . .	1,092,000,000	69,805,000,000
31 Dec., 1921 . . .	995,000,000	113,639,000,000
31 March, 1922 . . .	997,000,000	130,671,000,000
30 June, 1922 . . .	954,000,000	169,212,000,000
30 Sept., 1922 . . .	955,000,000	316,870,000,000
31 Oct., 1922 . . .	955,000,000	469,457,000,000
30 Nov., 1922 . . .	955,000,000	754,086,000,000
30 Dec., 1922 . . .	955,000,000	1,280,095,000,000
6 Jan., 1923 . . .	955,000,000	1,336,500,000,000
15 Jan., 1923 . . .	955,000,000	1,437,779,000,000
23 Jan., 1923 . . .	955,000,000	1,654,574,000,000
31 Jan., 1923 . . .	955,000,000	1,984,496,000,000
7 Feb., 1923 . . .	955,000,000	2,252,963,000,000
15 Feb., 1923 . . .	955,000,000	2,703,794,000,000
23 Feb., 1923 . . .	955,000,000	3,123,000,000,000
28 Feb., 1923 . . .	955,000,000	3,512,787,000,000
7 March, 1923 . . .	940,000,000	3,871,258,000,000
15 March, 1923 . . .	939,000,000	4,272,511,000,000

In addition to the stock of gold at the Reichsbank itself, that institution had on the 15th March, 1923, M.64,950,000 gold deposited with the Bank of England and other foreign banks of issue.

It will be noticed* that inflation was relatively moderate during and immediately after the war, and that it went on increasing at a faster and ever faster rate. The printing of additional notes was unceasingly demanded, because notwithstanding the gigantic quantity already produced, there was always a shortage of currency. The reason for this phenomenon was obvious: the depreciation proceeded faster than the printing of notes. Hence, there was always a shortage of currency which note printing, however energetic, could not overtake.

Before the war only about one-third of the notes was covered by gold, but notes and gold were practically identical in value. Nominally, the gold at the Reichsbank served still as security for the notes issued. The mark, however, depreciated to such an extent that the gold cover at the Reichsbank soon represented a far greater value than that of the notes themselves. At one time, the value of the notes in circulation was equal only to one-fourth of the gold of the Reichsbank.

With the entry of the French into the Ruhr Valley, the German authorities endeavoured to

36 GERMANY'S INDUSTRIAL REVIVAL

stabilise the mark at the rate of M.100,000 to the £ or M.20,000 to the dollar. However, the Reichsbank continued pouring out notes, which made it quite impossible to stabilise the mark at that or any other rate. •

The recklessness with which money was voted by the Reichstag and with which notes were printed, may be seen from the following fact published on the 2nd February, 1923, by the *Berliner Tageblatt* :

“Yesterday the Reichstag passed all three readings of the tenth supplementary estimates without debate. They empower to spend M.1,500,000,000,000 for cheapening food, to add to the Treasury resources M.2,000,000,000,000 in Treasury Bonds, and to raise M.500,000,000,000 for use in the Ruhr Valley.”

Without debate and without comment by the papers, M.4,000,000,000,000 were voted. As, at the time, the notes in circulation came to M.2,000,000,000,000 in round figures, this actually meant that the trebling of the gigantic note issue already in existence was carried unanimously and *sans* criticism from any quarter ! The tax revenue of the ten months from the 1st April, 1922, to the 1st February, 1923, came to M.556,571,876,000. The Reichstag had voted therefore without debate a sum equivalent to six years' revenue. We can

realise the position best by imagining an English Parliament voting without any discussion in the House credits amounting to £5,000,000,000, and yet attracting no attention from the Press.

Many responsible Germans feared at the outset that the destruction of the currency was a serious mistake: that it would have been wiser and more profitable to pay reparations. Doctor Alfred Lansburgh, one of the leading financial writers in Germany, who advocated extreme taxation and who opposed inflation from the beginning of the war, wrote in his monthly periodical *Die Bank* of September, 1922:

“Germany can stop the deterioration of the currency within twenty-four hours if only the Government proclaims: ‘From the 1st October no further bank notes will be issued,’ and when the people believe that this statement will be honestly acted upon. However, the present Government lacks belief in the possibility to do so. The Cabinet Ministers and their advisers think it impossible to stop the note-printing presses. Besides, they believe that it would be impolitic because, if the value of the German currency should improve, it would proclaim Germany’s increased ability to pay reparations and would therefore increase the claims for reparations on the part of the Entente. Thus Germany would be compelled to work for her creditors. If we leave out

38 GERMANY'S INDUSTRIAL REVIVAL

of account the great moral and social damage which is produced by the fraudulent manipulation of the national currency and if we look merely at the material loss caused by it, we must say that Germany cannot but profit by the stabilisation of the mark, even if, in consequence of it, the reparations burden should be made twice as heavy as is to be expected."

In the February issue of this review the same writer stated :

"For an honourable German there were three ways open. We might have said 'We have honourably lost the war. Men of honour pay what they owe, therefore we shall pay!' We might have said 'We deny that the charges put upon us are justified. We are disarmed. Therefore we shall pay, but we shall take our revenge.' There was a third way. We might have said 'Let us pay two yearly instalments in full and we shall not need to pay a third one. A nation can pay another nation only in goods. Our deliveries will smash the markets of the world and the recipients will implore us in the interests of their starving workers not to pay any more.' Germany has followed none of these three courses."

Particular interest attaches to this three years' old quotation, in that it foreshadows Germany's most recently indicated policy with its far-sighted and widely-reaching possibilities.

The nation is uniting in common endeavour to regain its industrial supremacy, and the reparation payment arrangements under the Dawes scheme are being deliberately used as lever to induce the working population willingly to contemplate an extended period of long working hours, low wages, and a generally reduced standard of living.

Dr. Schacht, the Reichsbank President, has recently drawn attention to the fact that unless Germany can export she cannot carry out the Dawes scheme, and that to hamper her by tariffs and want of working capital and at the same time expect her to pay reparations is incompatible. The position created industrially is that if Germany is to pay reparations she must be enabled to become a serious competitor in the world's markets. If she pays reparations in money, she must be allowed to flood the world with cheap goods to make it; if she pays in kind—where, in an overstocked market, will the industrials, her creditors, find outlet?

The assertion that Germany's financial plight is due to reparation payments is quite incorrect. If we leave reparation payments altogether out of account, it appears that she has not made provision for her ordinary non-reparation expenditure. Ever since the end of the war, ordinary expenditure has far exceeded revenue.

40 GERMANY'S INDUSTRIAL REVIVAL

In view of recent developments it may be of interest to summarise the opinions of Dr. Cuno, the late Chancellor, and successor to Herr Ballin as Head of the Hamburg-Amerika Line, expressed at a conference which took place at Hamburg, and at which there was a particularly full and frank discussion.

Dr. Cuno, together with several of his friends, was especially open in critical appraisal of the international situation. He held very strongly that it was a misfortune for Europe that the settlement of the reparations question was in the hands of politicians instead of in those of experts, and he spoke in high praise of the great ability shown by the Committee of Experts on Reparations at Paris during the discussions on the terms of Peace. His main contention was that Europe would have got back to settled conditions far more rapidly if those who really understood the situation had not been over-ridden by the continual intervention of political considerations. In illustration, he mentioned that his own experts accompanying him to Paris were hampered for five weeks by the politicians at Berlin, before authority was obtained to complete the arrangement for the delivery of shipping to the Allies. He explained his own position at Paris to have been in favour of delay on the part of Germany in signing the Versailles

Treaty, and said that it would have been much better for the settlement of Europe if the Army of the Allies had marched into Germany after the Armistice. His long experience of the German Treasury, he continued, made him certain that it was impossible for Germany ever to fulfil the terms of the Peace Treaty, and he, therefore, had advised that it should not be signed. He still felt that the difficulties with France could be solved, and settlement achieved, if the questions at stake were handled by experts of tried experience, and who were also competently informed.

It certainly reads well. The gist of his statements is that, first, Germany is anxious to pay reparations. Secondly, that the experts could arrive at a settlement more readily than the politicians. Thirdly, that England ought to support Germany. Finally, that reparations should be fixed in accordance with the latter's capacity to pay. There is no need to cavil at these statements.

Unfortunately, we have learnt from experience that Dr. Cuno and his party have always been willing to give soft talk, but no hard cash or its equivalents. The facts are simply these. That by the ruin of her currency, Germany's apparent capacity to pay has been deliberately reduced to the lowest point; whilst by long-drawn-out

42 GERMANY'S INDUSTRIAL REVIVAL

talk about agreements which are not being kept by them, reiterated demands for reparations to be reduced, and continual adducing of reasons why moratoria should be extended, settlement with the Allies has been consciously and purposely delayed, Germany being at liberty meantime to go on improving and strengthening her industrial machine and increasing her potential wealth and power of production.

Let us examine in detail these two propositions : First, the exact effect of inflation upon German industry ; secondly, the consequent capacity of the nation *really* to meet this question of reparations. And let us consider them as they affect the internal economy of Germany, her foreign policy and relations—with how they must eventually influence her future progress in these directions.

Judged dispassionately, inflation has had in Germany herself at one and the same time both favourable and disastrous consequences. German opinion itself is seemingly divided.

On the one hand, it is asserted that inflation has been of the greatest help to German industries, in that it has induced production on a cheaper scale than has been possible with us, and that it has assured full employment to German workers. Conversely, many Germans proclaim that the policy has been of no advantage to them, has

ruined a great many people, and caused nothing but loss to the country generally.*

Inflation has undoubtedly ruined the great German middle class. Before the war, people who had a fixed income of 20,000 marks were prosperous; now they are paupers. The wealth of nations consists of goods: securities, currency, etc., are issued against these. Germany's real wealth has neither been increased by the inflation nor has it been diminished. It has merely been re-distributed.

Formerly, the German peasant who had a mortgage of 20,000 marks on his property passed anxious days lest he should be unable to meet the interest—with consequent foreclosure. Inflation enabled him to pay off a 20,000 mark mortgage by selling a few fowls or pounds of butter.

Commerce and industry are carried on by means of borrowed money. The greater part of the capital of industrial or commercial undertakings does not belong to the nominal owner. The bulk of the capital of a factory often consists of mortgages, debentures, preference shares, and so on. The unfortunate owners of German mortgages, debentures, and preference shares, etc., received at the rate of 100,000 marks to the pound, merely 1/5000th, and very frequently they were paid off in grossly depreciated currency. In many cases, farmers, manufacturers, and others suggested

44 GERMANY'S INDUSTRIAL REVIVAL

paying off mortgages which had several years to run, by offering as inducement far more than the nominal amounts—in this depreciated currency. Inflation transferred capital in huge slices from the legitimate owners to agriculturists, commercialists, and industrialists, and it is unjustifiable for these to assert that inflation did not during its continuance benefit them, and to support that assertion by pointing out that their paper dividends, if reduced to gold, were very small. Every business man who is heavily involved aims to become the absolute owner of his property by paying off debts. The German industrialists, agriculturists, and other business men were suddenly made absolute owners of their properties, previous indebtedness having disappeared.

And while, as in a subsequent chapter will be pointed out in detail, the German Government is now, and has since November, 1923, been endeavouring by legislative measures to stabilise these conditions, such efforts in themselves prove indubitably how far-reaching were the disastrous consequences of the policy we are now describing.

The principal charges upon business are three: interest, rent, and taxes. Owing to inflation, the most important item—interest—became practically non-existent—to the great relief of business men. The other two items also almost disappeared from the same cause. German rents

were fixed by a Rent Restriction Act similar to our own. People living in 'very' large flats, or houses in the best position, paid a few thousand marks rent per year, which amount, before the war, represented several hundred pounds. During the period of inflation the same sum equalled only a few shillings. Rents of shops, factories and workshops were similarly fixed, to the great joy of the occupiers—who were sometimes wealthy—and to the grievous loss of the owners. Before the war, many working men paid what would be in English reckoning a rent of 10s. per week, which sum was actually equivalent in value to 10s. Inflation meant that the same workers only paid something like 1*d.* per week, and the result was that the English employer was in the position of having to give his workmen practically ten shillings per week more than the German employer, merely on account of the rent to which the English workman was liable.

Inflation practically abolished interest and rent, and vastly reduced the burden of taxation. German business men have been paying taxes with the utmost delay and in greatly depreciated currency. A man assessed upon an income of a million marks, at a time when the mark had a substantial value, could by delaying to pay his taxes as long as possible while his income increased to fifty or a hundred times his assessment, virtu-

46 GERMANY'S INDUSTRIAL REVIVAL

ally reduce the amount to one-fiftieth or one-hundredth of ~~that~~ which he was supposed to pay. The tax collector might be ever so eager and energetic, but he could never catch up with the fleeting mark. The only people who paid taxation in full were those unfortunate individuals whose income was fixed, and the workers from whose wages a nominal ten per cent. was deducted. Owing to the shrinking value of the mark, industry, commerce, and agriculture have been paying the merest trifle in taxation.

The effect of that release from the heaviest charges which weigh upon business may be visualised from the bankruptcy statistics. Before the war the average *monthly* number of bankruptcies reached 500-600. While failures in England and the United States are very much more numerous than they were in pre-war years, failures in Germany have almost disappeared. Their diminution may be seen from the following figures :—

1913	. . . . .	9,775 failures
1914	. . . . .	7,849 „
1915	. . . . .	4,545 „
1916	. . . . .	2,258 „
1917	. . . . .	1,229 „
1918	. . . . .	816 „
1919	. . . . .	1,019 „
1920	. . . . .	1,244 „
1921	. . . . .	3,017 „
1922 (10 months)	. . .	228 „
1923 (June)	. . . . .	595 „
„ (July)	. . . . .	17 „

And of the very few failures which do occur, a large percentage consists, not of the failure of business men, but of private people who have been ruined by the loss of their investments.

Not only were business men and agriculturists vastly benefited by the virtual disappearance of their debts, but the State likewise profited at the expense of the investors. National and local debts shrank to nothing, while the value of the material assets of the State, such as State railways, forests, salt works, mines and so on, stayed unaltered. Shares such as are represented by land, buildings, machinery, and minerals have more or less permanent values. These have increased enormously in value while quotations of interest-bearing securities have remained almost unchanged.

While Englishmen and other foreigners have been buying German Government stock, especially Threes, imagining that they were cheap, German holders have been eagerly selling them. In the 1920/21 balance sheet of the Siemens-Schuckert concern, Government securities to the amount of M.113,098,139 were enumerated among the assets. By 1921/22 that amount had shrunk to a beggarly M.891,341.

Inflation was by no means restricted to the

48 GERMANY'S INDUSTRIAL REVIVAL

currency. Prices and earnings, as shown above, increased in accordance with the declining value of the mark. Largely in order to avoid the distribution of hundreds per cent. of dividends on the gold mark capital, the 'capital of existing companies was watered again and again. In this way the dividend rate has been kept relatively low. Balancing this again, the prosperity created by inflation for the industries and commerce of the country caused many fresh enterprises to be initiated. The progress of new issues, both on account of such undertakings and of already existing companies, may be seen from the following figures :—

	<i>New Issues.</i>	<i>Additions to Capital of Existing Companies.</i>
1909	M.230,800,000	M.508,200,000
1910	241,300,000	599,400,000
1911	235,800,000	584,500,000
1912	246,300,000	747,600,000
1913	216,800,000	418,500,000
1914	322,200,000	551,900,000
1915	58,000,000	256,500,000
1916	113,200,000	246,600,000
1917	268,400,000	716,400,000
1918	338,500,000	705,500,000
1919	585,000,000	1,069,900,000
1920	1,580,700,000	6,569,500,000
1921	4,989,500,000	16,170,300,000
1922	15,805,400,000	39,008,500,000

It will be noticed that the additions to existing capital, largely paper, as set out for these years, vastly exceeded the amount of new issues, and

that the amounts increased usually in correspondence with the falling value of the mark. Among the new issues made by the various industries in 1922, the following were the most important :—

For machinery building	M.1,320,390,000
For banks	1,222,792,000
For metal working	1,106,203,000
For textile industries	1,064,780,000
For trade and commerce	1,044,980,000
For transport	1,005,750,000
For woodworking industries	864,335,000
For insurance	861,275,000
For food industries	607,730,000
For coal mining	703,805,000
For chemical industries	503,024,000

Not only the banks but the industries in general placed as much of their reserves as possible into brick and mortar, machinery, land, and tangible property of every kind; or else into foreign securities and foreign exchange.

Let us now consider the reverse side of the picture. Granted that the destruction of the value of the mark brought the greatest pecuniary advantages during those years up to stabilisation to the commercial men, agriculturists, and others engaged in active business, it has undoubtedly created very serious and lasting political and social dangers in Germany. Her stability remains seriously imperilled. The great middle class, the

50 GERMANY'S INDUSTRIAL REVIVAL

backbone of the country, has been utterly ruined. In Germany, 'as in' France, wealth has always been far more widely distributed than in this country. In 1914 the deposits in the savings-banks alone came to M.20,547,196,000, or to considerably more than £1,000,000,000; an amount four times as large as that held by the British savings-banks. Since 1914, the deposits in German savings-banks have increased to about M.60,000,000,000. At 100,000 marks to the pound, that sum is equal only to £600,000. Artisans, labourers, clerks—with all other small-amount depositors—have been robbed of the savings of a lifetime.

Again, the thrifty masses in pre-war days invested their cash, not only in the savings-banks but also in Government stock, small bonds, town houses, and so on. But from 1920 onwards securities with a fixed interest have been becoming almost worthless as the interest was paid in paper; and the value of houses let to tenants dropped to something almost nil, because rents were fixed at practically the pre-war standard and the cost of repairing far exceeded what was received from rent. Everywhere in Germany one meets people who have been deprived of their all by the State.

Now in all countries and at all times property owners are reckoned on as the most dependable

supporters of established order. Conversely, men who have been robbed of their hard-won savings are apt to become revolutionaries.

Whilst therefore inflation enormously benefited active business by practically abolishing the weighty charges of interest, rent, and taxation, it had a very unfavourable influence upon industry itself by engendering speculation, by destroying thrift, and by encouraging waste and idling.

The shrinking value of the mark led to a corresponding rise in prices. Hence speculation and profiteering became general. Many business men abandoned their legitimate occupation for gambling in produce of all sorts, and thousands of men of small means tried to make a living by speculating in meat, cheese, boots, clothes, candles, soap, and all kinds of necessities. Almost half the purchases made at shops were in the nature of a speculation. As soon as the mark began to fall, people rushed to the shops, partly in order to buy relatively cheaply for future need, partly to get rid of the cash which was shrinking in value. No one in his senses puts by money which is likely to evaporate. Surplus money is either converted into goods—goods of almost any kind, and one met during that period people of modest means who had bought twenty pairs of boots for their own use—or it is spent on amusements.

52 GERMANY'S INDUSTRIAL REVIVAL

The next actual, immediate, and extremely important result in Germany was that the liquid funds of the banks shrank. Now, as we have seen, the German banks before the war were all-powerful, dominating the national industries, which were heavily indebted to them. The collapse of the mark has transferred to the industrialists and other business men, not only the wealth of the old investors, but also the funds of the banks. In many cases, the principal assets of the banks now consist merely of the bank buildings, furniture, and fittings ! Many of the banks have been trying to protect themselves against loss by transferring their funds abroad, by buying foreign exchange and foreign securities, and by putting their surplus funds into bricks and mortar. Usurious rates were charged meantime for loans.

Interest at the rate of 100 per cent., 200 per cent. and more per annum has been by no means uncommon, for if the value of the mark shrinks during a given period by 50 per cent., and if, during the same period, only 90 per cent. interest is received on a loan, the bank suffers a loss of 10 per cent. on the transaction apart from working expenses.

Finally, we come to the most serious result of inflation, namely, that it has led to *general under-production*. Workers whose money-wages have

been considerably increased desire to live better and to take life more easily. During the post-war boom and inflation, when wages rose, the output per worker fell off in the most remarkable way both in England and in the United States. The great increase of money-wages in Germany had the same effect. Being given much larger (paper) wages, the German workers insisted upon a higher standard of life, shorter hours, and less exertion. Thus, *under-production became universal*.

Herein lies the reason that until recently Germany produced but 60 per cent. of her pre-war output, that the places of amusement were overcrowded, and that the consumption of popular luxuries such as sugar, chocolate, tobacco, beer, wine, liqueurs, and so on was unprecedently great.

Deflation is producing a remedy, as it has done in England and the United States: stabilisation at whatever cost to the country was the first and essential step to be taken in the interest, not only of Germany herself, but of all Europe.

CHAPTER III

POST-WAR ADMINISTRATION

ECONOMIC RESULTS OF FISCAL POLICY

Production and Resources during Inflation Period—Krupp's Works, 1913-1922—Iron and Steel Industries in Rhine Provinces—Reparation Claims not cause of Economic Disaster but General *Under-production*—In Heavy Industries—Civil Services—Agriculture. Territorial losses.

THE most serious feature of the German economic situation to-day and since the close of the war is undoubtedly the falling off in productive power.

German official authorities of the highest position have said that the fall of the mark and the ruin of German credit were the immediate and inevitable consequences of the Peace Treaty. Granted that the Treaty of Versailles did indeed operate to suggest inflation as a policy, it is—as we have seen—as impossible to exonerate the German Administration from having initiated it as to avoid the conclusion that it was inflation which ruined German credit and brought about the fatal degree of under-production.

Reserving for discussion in a subsequent chapter the position of German Industry summarised to the middle of 1925, we are concerned now to prove

the truth of this statement in its bearing upon the situation from the conclusion of hostilities during the period of inflation—which we may say began to be definitely effective in 1919, with the mark at 60 to the pound, and ended legally in November, 1923—noting results which will in effect extend far beyond the present day.

All the great German employing corporations complained that the result of the efforts of their workers fell much below pre-war level. The statement embodied in the 1920–21 annual report of Krupp's works at Essen may be taken as a fair representation of the position generally.

Coal production per worker per shift during the year 1920–21 came to 0·59 ton as compared with 1·04 tons in the pre-war year.

The blast furnaces produced per worker only 0·87 ton of material, which compares with 2·13 tons in the pre-war year.

In the rolling mills 0·55 ton per worker per day were turned out, which compares with 0·95 ton before the war.

The Siemens-Martin works produced 0·67 ton per worker per day, which compares with 1·83 in pre-war years.

The *Frankfurter Zeitung* of November 2nd, 1922, gave extracts from the yearly report of the Rheinische Stahlwerke Duisberg-Meiderich which contained the following figures:—

56 GERMANY'S INDUSTRIAL REVIVAL

	<i>Iron Production.</i>	<i>Steel Production.</i>	<i>Workers Employed.</i>
1913-14	647,095 tons	697,159 tons	6,201
1917-18	478,519 „	577,594 „	8,254
1918-19	369,995 „	443,508 „	9,243
1919-20	354,180 „	466,832 „	10,328
1920-21	458,368 „	558,309 „	10,453
1921-22	575,868 „	692,992 „	11,958

While iron and steel production therefore declined during the period for which figures are given, the number of workers producing this diminished output doubled, and it will be observed that the change indicates a reduction almost equal to one-half of pre-war effort per worker.

Certain specific local reasons were given for this post-war lessened production of German workmen. It was pointed out that a universal eight-hour day must naturally be an important factor, and that from the political point of view any attempt to extend the period of working would be attended by serious consequences. Time and facts have disproved this prediction, however. Also that the number of skilled workmen had been considerably reduced, and that the efficiency of those employed was much below pre-war standard. It was also urged that owing to the high cost of living, the food of the working classes was of poorer quality and their general standard of life lower.

It is true that a great deal of poverty was

apparent everywhere with what may be described as a lower standard of existence; but it cannot be admitted that the physique of the German worker materially suffered, or that he could plead the want of nourishing food as an excuse for the very much smaller rate of production per worker which characterised all German industry. ' .

The extent to which this decreased output became a feature of German economics, is shown by the testimony of Dr. August Müller, an ex-Cabinet Minister, who, in an article dealing with "The Exchange and Rise in Prices" in the *Berliner Tageblatt*, made the following remarkable statement :—

"If we wish to combat the rise in prices, we must in the first place deal with insufficient production in Germany, for production remains far behind pre-war production. The productivity of industry may be seen by its consumption of coal. Industry consumed in 1913 about 7,200,000 tons of coal per month, in 1920 it consumed only 4,147,000 tons per month, in 1921 only 5,242,000 tons per month in the first half of the year, and 5,523,000 tons per month in the second half of the year. In this calculation lignite is included according to its calorific value. The importation of cotton came in 1913 to 43,427 tons per month, and in 1921 to 25,748 tons per month. Output of chemicals has sunk below half the production of 1913.

58 GERMANY'S INDUSTRIAL REVIVAL

Before the war we produced from 23,000,000 to 27,000,000 bricks, but in 1921 only from 4,000,000 to 5,000,000. Cement production has declined from 8,500,000 tons in 1913 to 4,000,000 tons in 1921. Railway traffic in 1921 came to 75 per cent. of the 1913 standard.

"These are a few samples showing the decline of German production which would have led to the downfall of our currency even if no reparations had been paid. The German Statistical Office estimates that our national productivity is equal to about 60 per cent. of our peace output. If we assume that our consumption, including reparations, comes to at least 80 per cent. of our pre-war consumption, it will be found that Germany works with a deficit of 20 per cent. We pay for part of our imported food and raw material with exports and for the balance remaining with paper marks. Foreign nations have enough of them. The reparation problem merely adds to our trouble, the real and principal reason of which is to be found in the enormous decline of productivity of both our industrial and our agricultural labour."

The suggestion frequently made that this low production in Germany was due in large measure to the shortage of workers is hardly borne out by the facts; indeed, the truth is that there were more workers in post-war than in pre-war Germany. A vast proportion of the middle classes who were ruined by the economic policy of Germany were

driven into the field of labour, together with those hundreds of thousands previously engaged in domestic service, and who with this impoverishment of the same middle classes became unemployed. There were also over a million refugees who came in from German ceded territory, and the actual position was that in every branch of public service immensely larger numbers were being employed than before the war, since, as already pointed out, it was the deliberate policy of the Government, both preceding and subsequent to the revolution, to provide work for everybody, under pressure of the fear that any widespread development of unemployment would seriously imperil public order.

To mention but one section of the industrial community—the German railway employees—we find that in 1921–22 there were actually some 300,000 more in receipt of pay than in pre-war days. Yet owing to the war the superstructures and rolling stock had perforce been neglected, so that they had considerably decreased in value, while the delivery according to the Peace Treaty of 5,000 of the best locomotives and 150,000 coaches had further so reduced the assets of the railroad systems generally, that only the most pressing calls for expenditure in these directions could be met. In connection with this matter of

60 GERMANY'S INDUSTRIAL REVIVAL

over-staffing with consequent expense, the writer was informed on the authority of a present Minister of the Administration, that the post-war revolutionary spirit had led to the break-up of the sense of corporate unity among the employees—with a consequent reduction in the efficiency of the men.

Germans complain that during this period the coal deliveries made to France and Belgium were creating the utmost scarcity of coal in Germany. There was indeed up to 1924-5 a scarcity of coal in the country, but it was not so much due to reparation deliveries as to gross and universal under-production. In the most important German mine field in the Ruhr district, production and the number of workers were as follows in 1913 and 1922,

1913	114,550,153 tons	427,000 workers
1922	97,350,000 „	561,065 „

showing conclusively that notwithstanding the enormous increase in the number of workers, the output of 1922 was far below that of 1913. If production here per worker per day or per year in 1921-2, to quote but one year, had been equal to the pre-war, the Ruhr mines should have yielded at least 140,000,000 tons. Germany could have furnished all the reparation coal demanded; would have been able to meet all domestic requirements; and would, in addition, have had a free surplus

of at least 40,000,000 tons for export. In pre-war days, according to information received from Herr Bauer, one of the directors of Krupp's, their output of coal was six and a half million tons per annum of which only three-quarter millions were used by themselves. At the German-Democratic Economic Meeting in Eisenach in 1922, Herr C. V. von Siemens stated :—

“ A nation which has lost the greatest of all wars has no right to lead an easy life. It makes abroad a bad impression if we shriek because we have to hand over to France reparation coal. Foreign nations know quite well that Germany could swim in coal if production per worker was equal to peace production. The miners can no longer excuse themselves with the argument that they are being badly fed.”

Herr Hugo Stinnes stated before the German Economic Council in 1922 :—

“ The Germans must have the courage to tell the people ‘ You may retain the eight-hour day but you must work overtime at ordinary rates until Germany has obtained once more a favourable balance in her foreign trade. . . .’ In concluding¹ the agreement

¹ The Stinnes-Lubersac Agreement, as now transpires, was not made by Herr H. Stinnes alone, but in co-operation with Herr Peter Glockner, the well-known steel and iron magnate, and Dr. Silverberg.

62 GERMANY'S INDUSTRIAL REVIVAL

for deliveries in kind with Mons. de Lubersac I have left that gentleman in no doubt whatever that under present circumstances only little can be delivered in the form of goods. . . .

“You must have the courage to tell the Germans that it is impossible to work two hours per day less after having lost a great war. You must make up your mind to work productively instead of talking. The abandonment of the eight-hour day is a question of life and death, for we must produce sufficient goods for Germany to live. Unless we work two hours overtime per day—and with two additional hours we can live decently and go ahead once more—we shall have nothing to eat and we shall perish miserably.”

The Germans frequently explain that the decline of the mark was largely caused by Germany being compelled to buy abroad large quantities of coal and of foodstuffs. Germany did not need to buy a single ton of coal abroad. With her existing mines and with the number of miners employed, she was quite well able to produce far more than was required for her own use, and on account of reparation deliveries. This truth is fact to-day: Germany is at this moment (July, 1925) overstocked with coal.

The Entente Powers were not only blamed for Germany's coal shortage, but also for that of home-grown food which was attributed to terri-

torial losses, especially to the cession of the Eastern provinces to Poland.

But in agriculture, as in mining and in manufacturing, the home output has been on the decline. In consequence of diminished exertion on the part of the workers, and owing to Government control of prices and the fixing of prices at a level unremunerative to the producers, millions of acres in Germany have ceased to be productive. Cultivation in Germany within its present limits, according to the Government statistics published in the *Frankfurter Zeitung*, was in 1913 and 1922 as follows :—

	1913.	1922.
Winter wheat . . .	1,488,971 hectares	1,185,664 hectares
Summer wheat . . .	214,698 „	187,935 „
Winter rye . . .	5,219,787 „	4,078,941 „
Summer barley . . .	1,383,298 „	1,152,030 „
Oats . . .	4,925,993 „	3,202,324 „
Potatoes . . .	2,839,393 „	2,720,834 „
Sugar beet . . .	450,592 „	417,019 „

The area put under cultivation for the minor crops shrank in a similar fashion. The shrinkage of all grain crops amounted to 1,628,332 hectares, roughly 4,000,000 acres, which is equal to 19·4 per cent. There has not been a shortage of workers, for as already noted Germany has since the end of the war been recruited by a million immigrants, whilst a considerable percentage of the pauperised middle class have turned to agriculture.

64 GERMANY'S INDUSTRIAL REVIVAL

Again, under-production has been particularly noticeable in the services under bureaucratic control where idling seems universal. In August, 1922, Doctor Gothein, a former Cabinet Minister, and a practical authority on coal-mining and on economics, contributed certain articles to the *Berliner Tageblatt* which contained the following noteworthy remarks:—

“ If a nation reduces its production by one-half it can consume only half the quantity of foreign goods which it requires, and must accordingly reduce its standard of living. A nation cannot improve its position by raising wages. Unfortunately, we have learned nothing from the experiences made in Russia, Poland, and Austria. Reduction of output leads to an increase in staffs. The German Post Office serves a greatly reduced area and population. Although the work has noticeably shrunk, the number of postal workers is by more than 100,000 greater than it was before the war, and on an average 27 per cent. of the workers do not turn up on account of illness. We cannot wonder that the Post Office has worked with a deficit of 11,000,000,000 marks during the first six months of the present year, increased charges notwithstanding.

“ The State railways carry fewer goods and passengers, and they serve a much diminished area. Yet the *personnel* is by 300,000 greater than before the war. The railway repre-

sentatives have boasted that this year the railways will yield a profit. That profit has been brought about by increasing freights by from 100- to 250-fold, and this huge increase leads to a corresponding rise in prices, which in turn makes necessary a vast addition to the salaries and wages paid, with the result that the profit yielded by the railways becomes purely imaginary.

“While in other countries the hours of labour and production per worker have increased, the German workers have been striking against additional hours. In coal-mining, output per worker per shift has been receding from month to month. The German iron industry has had to restrict its output through lack of coal, although we import English coal in quantities far exceeding pre-war imports. In June and July we paid to England from 40,000,000 to 45,000,000 gold marks for coal alone, or three times as much as we paid for coal in pre-war times.

“Even if deliveries of reparation coal were cancelled altogether, the Peace Treaty revised in the most generous manner and a large international loan granted to Germany, the irresistible decline of the mark would continue so long as the German miners refuse to give us an output similar to the pre-war output. Before the war our foreign trade in coal brought us per year a net profit of 400,000,000 marks. Now (if we take the figures for June and July as a basis for calculation) our foreign coal trade shows us a loss of 900,000,000 marks per year.

“The position in other industries is similar to that of coal-mining. Farmers and agricultural labourers act in the same way as the miners, and those willing to work are prevented by threats from doing so. Germany is being depraved by its own people. An incredible egoism has taken hold of the workers, who declare strikes with the utmost levity. If statistics of actual work done were available, it would probably be found that work per worker per day does not come to eight hours but to far less than six hours.

“Nobody can seriously expect that foreign nations will grant Germany a large loan unless they are satisfied that German production exceeds consumption. But how can our exports be made to exceed imports; how can Germany be made self-supporting so long as we are forced to import huge quantities of coal and food because we refuse to do as much work as we did before the war? Can Germany continue competing in the markets of the world if German production per worker is far below production per worker elsewhere?”

Of specific interest in this connection is the contribution of Mr. D. F. Bolz to *Die Wirtschaftskurve* of May, 1924. He points out that amongst the various causes weighting German industry and resulting in decreased output with increase in cost of production, two are of special importance—the increase of the ratio of the un-

productive to the productive worker, and the small difference between the remuneration of the skilled and unskilled, reckoning as "unproductive" workers all not directly responsible for the production, such as the office *personnel*, and all whose labour cannot be definitely charged up to the production of any given article, *i.e.* porters, watchmen, the works upkeep staff, and so on. In 1913 the wages paid to unproductive workers represented 29 per cent. of the total wage bill: in 1923 47·35 per cent.—an increase of 60 per cent. This increase was, however, also due to the proportionately great increase in the pay of the unskilled worker. Thus in 1913 skilled foremen were paid at the rate of one G.M. per hour; the productive 70 pfg., and the non-productive 45 pfg., while in 1923, the unproductive worker was receiving 65 pfg. an hour, representing an increase of 45 per cent. Again, before the war women workers received 55 per cent. of the wages paid to men: in 1923 75 per cent. In the case of the office staff the clerk in pre-war days received £5 15s. 0d. per month, whilst the University-trained engineer at starting was paid £13 5s. 0d.: the trained man thus received 140 per cent. more than the clerk. In 1923 he was receiving but 47 per cent. more.

In 1913 the proportion of office salaries to

68 GERMANY'S INDUSTRIAL REVIVAL

those of productive workers represented 70·6 per cent. of the productive wages: in 1923 1284 per cent. In result this meant decreased production, so that for the same output 30 per cent. more employees were required. "There is no doubt," says Mr. Bolz, "that the decrease in output is the result of the big increase of unproductive work. The skilled men and particularly those engaged in piecework have kept up their pre-war output, although in some cases the quality has deteriorated."

Dr. Müller's statement that according to the German Statistical Office "national productivity is equal to about 60 per cent. of the peace output" is of the greatest importance. The correctness of that figure is apparent from the statistics relating to the output of coal, iron, steel, and agricultural produce, some of which are given above. Equally important is his estimate that German consumption comes "to at least 80 per cent. of Germany's pre-war consumption." *In other words, Germany consumed considerably more than she produced, spent considerably more than she earned and had therefore no surplus for paying adequate taxes or reparations.*

CHAPTER IV

POST-WAR ADMINISTRATION

ECONOMIC RESULTS OF FISCAL POLICY (*continued*)

Population and Employment. Natural Wealth. Raw Materials.
Foreign Trade. Criticism in Light of Statistics of Germany's
Capacity to Pay Reparations. Actual Payments made.
Findings of Reparation Commission.

PAUSE for a moment here to consider Germany's actual economic position with regard to raw materials and her former export trade. We find that Germany's national area has shrunk from 540,857 square kilometres to 472,082 square kilometres, that is to say the country has lost 78,775 square kilometres.

Land Ceded by Germany.

	<i>Millions of hectares.</i>	<i>Population in millions.</i>
Alsace-Lorraine	1.45	1.87
Schleswig-Memel (Rhine Province) . .	0.58	0.30
Upper Silesia	0.32	0.89
East and West Prussia and Pomerania.	4.70	3.41
Totals	7.05	6.47

The above areas and population represent about 10 per cent. of Germany's area and population before the war. The loss of population comes in round figures to 6,500,000. The population of Germany in 1921-2 was 60,000,000. In consequence of the immigration of Germans from those portions of Germany which have been

70 GERMANY'S INDUSTRIAL REVIVAL

separated from her, and of Germans who formerly lived in foreign countries, the density of population per square kilometre increased, and in 1922 amounted to about 128 people per square kilometre as compared with 123·8 people per square kilometre in 1910. Germany is now one of the most densely populated countries in the world, and ranges directly after Belgium, Holland and England.

In considering the economic capacity of Germany, it is important to bear in mind that by the Peace of Versailles, Germany lost districts which were of great moment to her for supplying her population with food and raw materials. With regard to food, the provinces of Posen, West Prussia, and North Schleswig were very valuable, and with regard to raw materials, Alsace-Lorraine and Upper Silesia.

If we compare the good harvest of 1913 with the harvest of 1921, which also was a good one, and with the harvest of 1922, we find the following figures :—

	1913. (Pre-war Area.) Tons.	1921. Tons.	1922 Tons.	Diminu- tion of 1922 com- pared with 1913.	Diminution of 1922 compared with 1921.
Rye .	12,222,394	6,798,638	5,349,091	— 56·32%	— 11·3%
Wheat .	4,655,956	2,933,820	1,895,723	— 59·28%	— 35·4%
Winters- pelt .	438,469	207,189	127,957	— 68·53%	— 38·3%
Summer Barley	3,673,254	1,938,995	1,581,367	— 56·94%	— 18·5%
Oats .	9,713,965	5,004,983	4,130,780	— 47·18%	— 17·5%
Potatoes	54,121,146	26,151,380			

The potato crop of 1913 in pre-war Germany came to 54,121,146 tons. In 1921 it reached 26,151,380 tons—a shrinkage of 51.7 per cent.

The potato crop of the United Kingdom comes on an average to only 6,000,000 tons per year, while that of Great Britain averages about 4,000,000 tons. Millions of tons of German potatoes are used annually for stock feeding, for making spirits, alcohol, starch, and other composites.

The area under grain crops of all kinds in 1913 was 14,752,963 hectares; 10,155,523 hectares in 1921, and 9,982,899 hectares in 1922. Of the loss of land under grain crops, 2,435,624 hectares is due to the loss of territory ceded in consequence of the war.

Between 1913 and 1922 the shrinkage of land under grain came to 4,770,064 hectares. As only 2,435,624 hectares of that loss is ascribed to territorial cessions, it follows that more than 2,300,000 hectares, or say nearly 6,000,000 acres within Germany as at present constituted, have gone out of grain cultivation. This fact accounts largely for the reduced output of bread and corn, and for the necessity of importing increased quantities of foreign bread and corn with consequences exceedingly hurtful both to Germany's finances and to the German exchange.

Owing to inadequate cultivation during the war years and an insufficient supply of artificial

72 GERMANY'S INDUSTRIAL REVIVAL

fertilisers, production per hectare considerably diminished. Before the war wheat yielded per hectare 24·1 double hundredweights. It yielded 20·4 double hundredweights in 1921 and 13·8 double hundredweights in 1922. For rye the corresponding figures are 19·3, 15·9, and 12·9; for oats, 22·0, 15·8, and 12·9.

The insufficient supply of artificial fertilisers was largely caused by the loss of the Lorraine iron ore, which provided one of the most important chemical manures, "Thomasmehl," although the startling reduction in yield in 1922 was not so much due to lack of fertilisers as to the bad weather which caused a great shortage throughout Europe.

Before the war, Germany stood foremost among the sugar-producing nations, with an output of 2,700,000 tons, and she exported 1,100,000 tons. In 1921-2, Germany produced only 1,300,000 tons of sugar, which, at best, barely suffices for domestic requirements. This shrinkage in sugar production was, however, it must be observed, owing less to the loss of the Eastern Provinces, which contained only a small percentage of the acreage under sugar-beet, than to labour difficulties. Price control also was to blame.

It is obvious that the lessened output in agricultural produce unfavourably affected both the price of food and Germany's foreign trade balance.

As an insufficient quantity of foodstuffs was produced, slaughtering on a considerable scale became inevitable, while, in addition, large numbers of animals had to be delivered to the Allies. Between the first of December, 1913, and the first of December, 1921, the stock of cattle declined from 21,000,000 to 16,800,000, while that of pigs was reduced from 25,600,000 to 15,900,000. On the other hand, the German Statistical Year-book shows that since the war, Germany's live-stock has increased in the following extraordinary manner :—

		<i>Cattle.</i>	<i>Pigs.</i>	<i>Sheep.</i>
1st March,	1919 .	15,828,164	6,755,806	5,684,543
1st „	1920 .	16,213,454	9,323,444	6,199,481
1st December,	1921 .	16,850,584	15,879,223	5,890,418

while in connection with this increase it must be remembered that Germany within her reduced frontiers cannot easily carry as many animals as before.

With regard to industrial raw materials, Germany's position has deteriorated. If we reduce lignite to ordinary coal value in accordance with its heating properties, Germany's coal production came to 209,467,000 tons in 1913 and to 163,286,000 tons in 1921, a diminution of 22 per cent. In 1913, Germany imported 16,300,000 tons of coal, lignite being reduced to coal value, and she exported 46,000,000 tons. In 1921, coal imports

74 GERMANY'S INDUSTRIAL REVIVAL

had declined to 8,200,000 tons, while exports, inclusive of reparation coal, came to 26,900,000 tons. Of this figure, only 18,000,000 tons were reparation coal; coke and briquettes being reduced to coal. Hence, free exports of coal came only to 8,900,000 tons. Reparation deliveries averaged from 1,500,000 tons to 1,600,000 tons per month in 1921-2. Germany is credited with the German inland price for coal delivered, but that price is equivalent to only one-third the price which the French Government obtains in selling it.

Germany's coal exports, apart from reparation deliveries, went on steadily shrinking. In May, 1922, they came to 701,900 tons, and in August, 1922, to only 121,400 tons. On the other hand, the importation of foreign coal increased so much that it exceeded average imports previous to the war. Importation of coal came in May, 1922, to 333,700 tons, in June to 782,800 tons, in July to 1,540,210 tons, in August to 1,500,000 tons, in September to 1,455,000 tons. Lately, there were added the imports from Upper Silesia, which now belongs to Poland. They came in July to 610,000 tons, in August to 620,000 tons, and in September to 637,000 tons. Germany imported besides from Czecho-Slovakia lignite of high calorific value; the amount in July, 1922, was 261,500 tons, in August 230,000 tons, and in September 147,000 tons.

The importation of foreign coal cost Germany

on an average 35,000,000 gold marks per month. Nevertheless, the quantities imported proved insufficient either to meet the much-diminished demand or to provide the German industries with the coal they required. They suffered from an acute scarcity of coal. How seriously coal consumption became reduced, lignite being again converted into coal according to its value, may be seen from the fact that compared with pre-war time, coal consumption came to 71.4 per cent. in 1919, to 74.6 per cent. in 1920, and in 1921 to 77.5 per cent. of the pre-war consumption.

The actual figures as regards coal consumption in Germany, comparing 1913 with 1921, are :—

1913.	1921.
179,700,000 tons	139,300,000 tons

While, of course, as these figures indicate, coal consumption in a Germany reduced in area is in fact smaller than in pre-war days, yet relatively it is far greater. It must again be emphasised that this coal shortage in the country and necessity to import at high cost was due less to the delivery of reparation coal than to the grossly diminished output of the miners. The Ruhr coal field was left intact by the Peace Treaty. As already stated, but in connection with this particular argument it must be repeated, output in the Ruhr Valley and the number of workers employed were as follows in 1913 and 1922 :—

76 GERMANY'S INDUSTRIAL REVIVAL

	<i>Output.</i>	<i>Number of workers.</i>
1913	114,550,153 tons	427,000
1922	97,350,000 „	561,065

Production per miner per day was in 1922 about 60 per cent. of pre-war production. If output per worker per day had been as great in 1922 as in 1913, Germany could, we maintain, have done without imported coal, delivered all the reparation coal demanded, and been able to export in addition at least 40,000,000 tons of coal—to the immense advantage, of course, of her finances and exchanges.

In 1913, Germany produced 28,600,000 tons of iron ore. In 1920 domestic production of iron ore came only to 6,400,000 tons. Iron production which came to 16,800,000 tons in Imperial Germany in 1913, had shrunk to 5,700,000 tons in 1919; it came to 6,400,000 tons in 1920, and to 7,500,000 tons, provisionally estimated, in 1921. Steel production in Imperial Germany, including Luxembourg, came to 19,300,000 tons in 1913; it was 8,000,000 tons in 1920 and 9,000,000 tons in 1921. It must be noted in this respect, however, that during the post-war years, iron and steel production was far lower throughout the world than before the war. During 1921 Germany produced considerably more iron and steel than France and England combined. It is therefore not fair to blame the Peace Treaty for a great reduction in productiveness which was by no

means limited to Germany, ' but was equally striking in England and France.

Germany's foreign trade showed in 1921-2 an excess of imports over exports of about 1,000,000,000 gold marks. Before the war her yearly imports came to 10,700,000,000 marks. During the 12 months from the 1st of May, 1921, to the 30th of April, 1922, they were valued at 4,600,000,000 gold marks. This meant a shrinkage of 57·1 per cent. as compared with pre-war years. These imports were classified as follows in 1921-2 :—

Food imported	1,750,000,000	gold marks
Raw materials and semi-manufactured articles	2,250,000,000	„
Fully manufactured articles	600,000,000	„
	<hr/>	
	4,600,000,000	„

Domestic investments in German industries were actually, though perhaps not nominally, larger before the war than were corresponding investments in English industries. It is not necessary to give figures in support of this assertion. The fact that Germany has rapidly built up industries larger than the corresponding British industries, and provided them with the most modern and most costly plant regardless of expense, speaks for itself. During the war and since, the extension and modernisation of plant have been continued all over Germany with the

78 GERMANY'S INDUSTRIAL REVIVAL

greatest energy, while the British manufacturers have been unable to do likewise because the bulk of their profits has gone to the tax collector.

It is characteristic of the altered position of Germany that whereas food imports came to 28 per cent. of the total import trade in 1913, they came to 38 per cent. of the total import trade of 1921.

The passivity of Germany's foreign trade was, however, not so much due to the war as again to under-production. Germany has been consuming more than she produced and has therefore been falling more and more deeply into debt. Imports are paid for with exports. If the German workers had been producing in 1919-23 as much as they did in 1913, Germany could pay reparations and would rapidly regain her wealth.

Measured by weight, exports during the 12 months from May, 1921, to April, 1922, inclusive of coal exports but apart from reparations, equalled only 30 per cent. of the pre-war exports. While the gold value of Germany's exports previous to the war exceeded 10,000,000,000 marks, it came during the 12 months mentioned only to 3,600,000,000 gold marks. The low value of the German mark has certainly stimulated export. However, that effect has been only in evidence so long as Germany's costs of production were lower than were the costs of production in

competing countries. German domestic prices are rapidly approaching the level of world prices and in some instances are above. The true position of the German export trade during the inflation period may be seen by the relation which exports then bore towards pre-war exports. Measured by weight, exports during the 12 months, May, 1921, to April, 1922, stood in the following relation to pre-war exports :—

Mineral and fossil raw materials and mineral oils	24%	of 1913 exports
Agricultural and forestal products	30%	„ „
Chemical and pharmaceutical products, dyes, etc.	44%	„ „
Machinery, electrical apparatus, vehicles, etc.	68%	„ „
Paper and paperware	70%	„ „
Firearms, clocks and watches, musical instruments and toys	77%	„ „

There are various goods such as coal and sugar the export of which became practically non-existent.

Before the war, the German foreign trade statistics were reliable; her currency was sound and as good as the British currency; the German officials were trustworthy and unbribeable. In view of the extraordinary fluctuations in the value of the mark, it is exceedingly difficult to ascertain the gold value of exports and imports with any degree of accuracy. Moreover, there have been so many cases of fraud connived at by the Customs officials and others, that even the statistics based

80 GERMANY'S INDUSTRIAL REVIVAL

upon weight may 'be somewhat misleading. We find, however, that during 1922 imports and exports compared as follows, measured by value :—

	<i>Imports.</i> <i>Gold marks.</i>	<i>Exports.</i> <i>Gold marks.</i>	<i>Difference.</i> <i>Gold marks.</i>
January . . .	330,400,000	325,400,000	— 5,000,000
February . . .	359,600,000	297,900,000	— 61,700,000
March . . .	563,200,000	324,000,000	— 239,200,000
April . . .	508,000,000	327,000,000	— 181,000,000
May . . .	565,200,000	416,200,000	— 149,000,000
June . . .	564,600,000	427,900,000	— 136,700,000
July . . .	684,800,000	336,300,000	— 348,500,000
August . . .	545,100,000	254,800,000	— 290,300,000
September . . .	421,800,000	290,900,000	— 130,900,000
October . . .	531,700,000	291,400,000	— 240,300,000
November . . .	536,200,000	255,200,000	— 281,000,000
December . . .	589,800,000	423,000,000	— 166,800,000
	<hr/> 6,200,400,000	<hr/> 3,970,000,000	<hr/> 2,230,400,000

The statistics based upon quantities roughly confirm the statistics based upon values :—

	<i>Imports.</i> <i>Double</i> <i>hundred-</i> <i>weights.</i>	<i>Exports.</i> <i>Double</i> <i>hundred-</i> <i>weights.</i>	<i>Difference.</i> <i>Double</i> <i>hundred-</i> <i>weights.</i>
January . . .	23,100,000	20,300,000	— 2,800,000
February . . .	14,700,000	17,500,000	— 2,800,000
March . . .	26,400,000	21,500,000	— 4,900,000
April . . .	28,900,000	21,800,000	— 7,100,000
May . . .	38,100,000	20,900,000	— 17,200,000
June . . .	40,300,000	18,800,000	— 21,500,000
July . . .	48,000,000	16,400,000	— 31,600,000
August . . .	46,800,000	14,100,000	— 32,700,000
September . . .	48,300,000	15,900,000	— 32,400,000
October . . .	55,500,000	15,400,000	— 40,100,000
November . . .	45,500,000	15,500,000	— 30,000,000
December . . .	43,200,000	17,600,000	— 25,600,000
	<hr/> 458,800,000	<hr/> 215,700,000	<hr/> — 243,100,000

If we now compare the foreign trade of 1922 with that of 1913 we find that there has been a practically general shrinkage in both imports and exports. The imports of raw materials and of partly manufactured articles must also be shown in order to give some indication as to the position of Germany's manufacturing industries. Measured by weight, the imports of raw material and partly manufactured articles compared as follows:—

	<i>Imports 1913. Double hundredweights.</i>	<i>Imports 1922. Double hundredweights.</i>
Raw silk	62,000	24,000
Wool and hair	2,452,000	2,149,000
Raw cotton	5,835,000	3,139,000
Leather and hides	2,069,000	942,000
Tobacco	814,000	759,000
Oil seeds and oil fruit	17,474,000	8,501,000
Oil cake, etc.	8,285,000	931,000
Wood and timber	62,396,000	24,659,000
Wood pulp	550,000	720,000
Tanning materials	2,602,000	1,148,000
Resin, shellac, etc.	1,190,000	505,000
Rubber	284,000	234,000
Coal	105,401,000	125,984,000
Lignite	69,871,000	20,157,000
Coke and patent fuel	7,427,000	3,586,000
Mineral oil	12,944,000	7,918,000
Cement	1,685,000	1,326,000
Copper	2,451,000	2,205,000
Lead	838,000	856,000
Superphosphates, etc.	4,945,000	3,347,000
Chemical raw materials, etc.	10,469,000	1,288,000
All raw materials	597,060,000	388,767,000

Practically all the items given show a considerable diminution. There are only three excep-

82 GERMANY'S INDUSTRIAL REVIVAL

tions to the general rule—the imports of wood pulp, coal and lead, which have slightly increased; but these three items are relatively quite unimportant. The general and very substantial reduction of imports of raw materials proclaims that industrial production in Germany was far lower in 1922 than in 1913.

If we now compare the exports of manufactured goods in 1922 and the pre-war year, we find the following figures :—

	<i>Exports 1913. Double hundredweights.</i>	<i>Exports 1922. Double hundredweights.</i>
Cotton yarn	166,000	42,000
Cotton cloth	706,000	322,000
Porcelain and stoneware . . .	1,929,000	1,613,000
Furniture and woodware . . .	790,000	1,331,000
Copper ware	848,000	445,000
Rubber goods	193,000	167,000
Films	2,800	8,430
Paper and paperware	3,441,000	4,175,000
Dyes and colours	2,640,000	1,499,000
Glass and glassware	2,311,000	1,389,000
Textile machinery	730,000	426,000
Locomotives	544,000	1,013,000
Machine tools	902,000	782,000
Agricultural machinery . . .	407,000	344,000
Electrical apparatus	419,000	237,000
Bicycles in parts	97,000	161,000
All manufactured goods . . .	93,181,000	58,362,000

With the exception of furniture, films, locomotives, paper and bicycles, all the items given show a very considerable shrinkage, and so does the total. Only a certain number of representative items are here included whether in the list of

imported raw materials or of exported manufactures, but the figures given show that Germany's manufactured exports were also very considerably smaller in 1922 than in 1913.

How do the above considerations tally with the number of statements published by Official Germany in which her reparation payments have been summarised? These vary very widely, as the following figures show :—

	<i>Gold marks.</i>
<i>Frankfurter Zeitung</i> statement 10th May, 1922 .	45,600,000,000
Doctor F. Schröder in <i>Manchester Guardian</i> Supplement 28th September, 1922	41,000,000,000
Later official statement	38,242,970,000
German Embassy statement, 8th February, 1923	36,000,000,000
<i>Deutsche Allgemeine Zeitung</i> 22nd February, 1923	56,500,000,000

The extraordinary variations in the official estimates of payments made have filled people with suspicion. Let us analyse the third estimate by means of a detailed Government publication which is entitled " Our Performances Under the Peace Treaty " :—

	<i>Gold marks.</i>
State property in ceded territories	5,400,000,000
Merchant marine, American vessels excluded .	4,400,000,000
Abandoned materials	1,800,000,000
Rolling stock, etc., in ceded territory . . .	1,501,000,000
Saar mines	1,000,000,000
Machines for reconstruction work	871,000,000
Coal, coke and by-products	692,000,000
Livestock	299,000,000
Inland vessels and oversea cables	218,000,000
Dye stuffs and various	132,000,000
	<hr/>
	16,313,000,000

84 GERMANY'S INDUSTRIAL 'REVIVAL

Cash Deliveries.

Under Peace Treaty	1,595,000,000
Under clearing house procedure	598,000,000
	<hr/>
	2,193,000,000
	<hr/>

Miscellaneous.

	<i>Gold marks.</i>
Cost of Army of Occupation, damages in foreign countries and the German colonies	1,036,500,000
Loss of claims on Germany's allies	7,000,000,000
German liquidated property abroad	11,700,000,000
	<hr/>
Grand total	38,242,500,000
	<hr/>

If we take the average of the official statements it would appear that Germany has paid something like 40,000,000,000 gold marks or £2,000,000,000. According to the statements of the Reparations Commission, she has only paid one-fifth as much. How can the great difference between the statements made by the two sides be explained clearly?

First note that the very small cash deliveries are unduly swelled by including in them the payments made through the clearing house on account of private pre-war debts. During the war, Germany loaned to Austria, Turkey and Bulgaria 7,000,000,000 marks. It is very unlikely that these loans would have been repaid had Germany been victorious. Meantime the Peace Treaty contains a rather unnecessary paragraph according to which Germany abandons her claims for these loans. The Allies will, of course, never see a

penny of that money. Nevertheless the sum of 7,000,000,000 marks appears as a payment made to the Allies.

Secondly. The value of the merchant ships lost, excluding those in American hands, is put down as 4,400,000,000 marks. In another official statement the value of the ships, including the American, is put down as 7,310,302,824 gold marks. The provisional valuation of the Reparation Commission comes only to 659,867,000 gold marks, or less than one-tenth that sum. In his book, "Deutschlands Volkswohlstand," published in June, 1914, Herr Helfferich, a former director of the Deutsche Bank and a Finance Minister of Germany, stated that the value of the entire merchant marine and inland fleet was a little more than 1,000,000,000 marks. As Germany delivered only a small portion of her inland shipping, the tonnage of which exceeded that of her merchant marine before the war, the gross exaggeration of the German estimate is obvious.

Thirdly. According to a detailed statement in the German official publication, "Summary of the Delivery, Etc.," full details are given for the valuation of the Saar mines. The valuation is based on the value of the coal contained in them to an unspecified depth below 2,000 metres, or say, 6,000 feet. Coal mining below 4,000 feet is as a

86 GERMANY'S INDUSTRIAL REVIVAL

rule not practicable—for technical and financial reasons. At the maximum rate of production previous to the war, which can probably not be greatly increased because of the narrowness of the field, some of the coal included in the German valuation would be mined only 3,000 years hence. The Reparation Commission placed the value of the Saar Mines at 400,000,000 marks and on the basis of Herr Helfferich's book the value of these mines should be between 300,000,000 marks and 400,000,000 marks. Other items in the German statement contain similar exaggerations.

Germany's cash payments have been small and her deliveries in kind have not been very large. According to a German official statement entitled "Carrying Out the Treaty of Versailles," coal deliveries fell short of the quantities agreed upon in every month except in October, 1920. As we have shown, *Germany should have been able to supply with ease all the coal demanded.* According to the *Frankfurter Zeitung* of the 8th November, 1922, in 1913 Germany exported net 33,587,000 tons. Germany's live-stock deliveries also have not been very great if compared with the number of animals which she took away from the occupied districts. As a matter of fact, Germany has replaced only a tithe of the animals she took from France and Belgium during the time of the occupation.

Germany has lost large and valuable areas in consequence of the war. Still, she retains very great resources of every kind and the country is intrinsically as rich as Great Britain if not richer. The wealth of nations consists in physical resources and in their workers.

As regards Germany's physical resources, it may be said that the country has been vastly favoured by nature. Germany occupies the centre of Europe. Her position makes her the natural mart and exchange of the Continent, and her trading potentialities are greatly improved by her unique system of deep, gently-flowing, and parallel-running rivers which are navigable by boats carrying 1,000 tons and more, and which not only open up all Germany but the neighbouring countries as well. Hamburg used to be the most important harbour of Austria-Hungary. A large part of the traffic of Western Russia, the Danube lands, Northern Italy, Switzerland, Eastern France and the Scandinavian countries went *via* Germany.

All North Germany is a level plain. Between Cologne and Königsberg there is not a single tunnel and no important cutting. Railway construction and the construction of roads and canals is exceedingly cheap in North Germany. Hence the country enjoys cheap freights, an inestimable boon to her industries and commerce: natural conditions make transport cheap in Germany.

88 GERMANY'S INDUSTRIAL REVIVAL

The level plain is most suitable for agriculture : cultivation is difficult and expensive where there are hills. She has also an excellent climate for agriculture, and first-class soil, and she produces a superabundance of artificial fertilisers, such as potash. Where the soil is unsuitable for agriculture, there are forests. About one-quarter of Germany is forest-land and the German forests are among the best managed and the most productive in the world.

Again Germany is highly mineralised. Even if she has lost considerable coal areas to France and Poland she yet remains the nation richest in coal in Europe; and with regard to that mineral she is far ahead of the United Kingdom, as the following figures, which were published by the Government and reprinted by the *Börsen Courier* of December, 14, 1921, show :—

Germany	235,000,000,000 tons
Poland	208,000,000,000 „
United Kingdom	189,000,000,000 „
European Russia	57,000,000,000 „
France	31,000,000,000 „
Belgium	11,000,000,000 „
Holland	4,000,000,000 „
Other countries	78,000,000,000 „

In all probability the full extent of the German coal fields is not yet known. German coal is of excellent quality and it is easily and cheaply

obtained owing to the thickness of the seams. In addition to this gigantic store of black coal, Germany possesses huge quantities of lignite or brown coal, the production of which has increased as follows during the last few years :—

1913	. . . . .	87,116,000 tons
1918	. . . . .	100,663,000 „
1921	. . . . .	122,011,000 „

German lignite has about one-third the calorific value of coal. It has the great advantage of being superabundant and obtainable at a very cheap rate. Lignite occurs close to the surface. The surface soil is stripped off and lignite is quarried rather than mined. The German lignite is rich in bitumen. Hence, no binding material is required to convert it into patent fuel, such as briquettes. Large quantities of lignite are used on the spot of extraction in producing electric power.

Germany's rivers and streams can provide several millions of hydro-electrical horse-powers. The German waterways are already connected with the waterways of France and with the Danube, but the inland waterway system can be, and is being, greatly extended. The waterways of Russia will be organically connected with the German waterways. The new Rhine-Danube

90 GERMANY'S INDUSTRIAL REVIVAL

waterway will be navigable by boats carrying 1,000 tons and more. These improvements will not only vastly increase Germany's commercial and industrial possibilities but will incidentally provide very large hydro-electrical powers.

Up to the war, Germany enjoyed a world monopoly with regard to potash. The country has an inexhaustible wealth not only of potash but of salts of every kind.

Certainly she has lost the bulk of her iron ore in Lorraine, as well as the bulk of her very important zinc deposits in Upper Silesia, and that loss is no doubt serious.

Still, it need not impel the impoverishment of Germany. It is no doubt advantageous to industries if they can work up raw materials produced at home, but industrial prosperity may be based on raw materials obtained from abroad. That is shown by the British cotton industry and many other industries everywhere. In fact, Germany drew large and ever-increasing quantities of iron ore from Sweden, Spain, and other countries previous to the war. The Treaty of Versailles has taken away important resources, but Germany retains natural wealth of inestimable value.

Germany's pre-war wealth was created by her people. The potentiality of human beings is above the possession of material assets. Germany

has lost millions of her citizens dwelling in the ceded territories, but she is rapidly making up for that loss. During the three years 1919–21 the excess of births over deaths in Germany has been as follows :—

1919	.	.	.	.	.	.	.	282,120
1920	.	.	.	.	.	.	.	666,358
1921	.	.	.	.	.	.	.	686,655

The excess of births over deaths in 1922 probably exceeded 600,000. Since the Armistice, more than a million refugees and others have entered Germany and settled. It appears, therefore, that the population has been increased since the war by considerably more than three millions; the country should rapidly regain her pre-war numbers. In the past, the Germans have been amongst the best workers in the world. Some of their qualities have temporarily suffered in consequence of the war and of the revolution, but the inborn abilities of the race will undoubtedly return. There is every reason to believe that owing to the greatness of her physical and human resources, Germany will fast re-establish her old preponderancy. Not only industrially but agriculturally Germany has always been far more productive than France. According to the Statistical Abstract of Germany of 1913, the relative conditions of the two countries could be summarised as follows :—

92 GERMANY'S INDUSTRIAL REVIVAL

	<i>Germany.</i>	<i>France.</i>
Area, square kilometres	540,858	536,464
Population	64,925,993	39,602,258
Increase per year during decade	856,901	70,003
Wheat and rye produced, tons	15,959,000	9,960,000
Barley produced, tons	3,482,000	1,086,000
Oats produced, tons	8,520,000	5,069,000
Potatoes produced, tons	50,209,000	12,774,000
Cattle	20,158,738	14,435,530
Pigs	21,885,073	6,719,570
Sheep	5,787,848	16,425,330
Sugar production, tons	1,347,951	465,395
Cotton consumption, tons	1,770,286	987,843
Coal production, tons	260,000,000	41,000,000
Iron production, tons	17,853,000	4,872,000

In view of these figures, it is understandable that France wishes Germany to make good the damage done by her troops. At present, Germany cannot. Her inability is due partly to the inflation of her currency which has created confusion in Germany's finances, and partly to the fact that consumption is greater than production and that therefore the nation does not produce an adequate surplus from which to provide even the taxes for her domestic requirements. *The factor of under-production is a most important one.*

German economists maintained before the war that Germany was the richest nation in Europe. Herr Steinmann-Bucher wrote in his book "350 Milliarden Deutsches Volksvermögen":—

"Formerly, we are told, the wealth of Germany amounted to £10,000,000,000, that of

France to £10,000,000,000, and that of Great Britain to £12,500,000,000. To-day we may say that Germany's wealth comes to £17,500,000,000, France's wealth to £16,000,000,000. In twenty years, in 1930, Germany will have a national wealth of £30,000,000,000, which should compare with the wealth of £15,000,000,000 in the case of France and of £21,000,000,000 in the case of Great Britain."

Herr Helfferich, in his book "Deutschlands Volkswohlstand," thought this estimate too high, and stated that Germany's wealth was £10,000,000,000 in 1895 and had increased from £15,000,000,000 to £16,000,000,000 in 1910-11. Both statements show the extraordinarily rapid expansion of Germany's wealth. That expansion should continue in the future in view of Germany's great natural advantages.

Although the pre-war statements with regard to Germany's prosperity by her economic experts may have been exaggerated, it does not follow that those at present made by German economic authorities to the effect that Germany is too poor to pay reparations, and to balance her revenue and expenditures, should be credited. Facts and figures establish that Germany has vast material and human resources, and immense potentialities for the creation of wealth.

94 GERMANY'S INDUSTRIAL REVIVAL

At the close of 1923 there were also certainly indications of an improvement in German economic conditions. We have, for instance, seen that the production of iron and steel in 1921 was better than in the previous year. German industries had also by 1923 succeeded in regaining their hold upon certain foreign markets; and the German mercantile marine was again expanding, as the following statistics prove :—

German Mercantile Marine.

1896	. . . . .	1,969	million tons gross Reg.
1906	. . . . .	3,725	„ „ „
1914	. . . . .	5,712	„ „ „
1919	. . . . .	604	„ „ „
1922	. . . . .	2,195	„ „ „
1923	. . . . .	2,954	„ „ „

As regards German competition the stocks held by German manufacturers were—with the exception of the iron and steel trade and some special firms with very large selling organisations—comparatively small. Wholesale manufacturers and retailers appeared, however, to have large stocks on hand. So far as these goods have been suitable for foreign markets they have been released—to exercise a most disturbing influence on the world trade.

CHAPTER V

POST-INFLATION PERIOD

FISCAL AND ECONOMIC POLICY

Summary of position at close of Inflation Period—1923-4-5.
The Rentenmark—Stabilisation—1924 Year of Crisis—
Need of Working Capital—Decline of Credit. Effect of
London Conference and Dawes Scheme. Budgets 1924-5-6.
Taxation—Debentures and Mortgages.

CRITICISM of the statements in the preceding chapters can be most effectively met by pointing to the conditions in Germany now at the close of the half-year 1925. For every step marking a phase of downward progression during the inflation period is, in the present co-ordinated effort of all Germany to recover status, being consciously reversed.

Briefly summarised, the industrial position from 1919 to the autumn of 1923, considering in turn the questions of wages, taxation, the state of home and foreign markets with the policy of the Administration *re* protection, debentures and mortgages, and finally under-production, was marked by the following features :—

Wages, calculated on a gold basis, tended steadily to decrease. Taxation, owing to delays

96 GERMANY'S INDUSTRIAL REVIVAL

in collecting and the constant depreciation of the currency, was really infinitesimal. All Germans meantime throughout this period were faced with the certainty that unless their paper profits could be converted into something tangible they would rapidly become valueless, and many far-sighted persons, despite legal and other difficulties, set about acquiring considerable sums in foreign currency in exchange for paper marks. These sums were held to their credit by banks inside as well as outside Germany. In so far as such currencies were secured in exchange for paper marks, it has meant and is a pure gain for Germany: a net loss to the foreign holders. German industrialists were making huge profits in paper marks, and in many cases in stable currencies. They also purchased foreign currencies. These amounts in marks were repaid with as much delay as possible, so that at the time of repayment they represented, owing to the inflation, only a fraction of the values which had meantime been realised by their use. In this way vast fortunes were amassed at the expense of the German State and private individual. Not only a major portion of such gains, but also large sums of paper marks borrowed from the banks, were expended by these same industrialists in making big extensions of their works and installing new

plant and machinery. Every traveller in Germany notices the huge industrial establishments which have only come into being since the Armistice, and that existing ones have been enlarged and modernised with wholesale scrapping of all machinery not representing the last word in efficiency.

The machinery trade was exceedingly busy, although as exports were small, orders came chiefly from the German manufacturers. The prosperity of German industry during this period is to be gauged, not so much from the published financial accounts and declared dividends, as from these extensions and improvements which were made out of earnings and do not necessarily appear in the balance sheets. As inflation also caused the practical disappearance of debentures and mortgages on industrial undertakings, a very favourable position from the manufacturers' point of view was created for production. It is true that foreign raw materials increased in price, measured in paper marks, but as the prices for German manufactured goods increased at a similar rate, the ability of German manufacturers to exchange their wares against raw materials was not materially diminished. The necessity also for converting paper marks into something tangible induced a brisk demand in the home markets for

98 GERMANY'S INDUSTRIAL REVIVAL

every article. People spent freely because if they did not the money they had one day might have lost its value a week later. So the habit of spending grew. Even up to the winter of 1923-4, which signalised the first real attempt to stabilise the mark, the expenditure of the population on useless as well as on useful articles was extremely high, and in most cases, having regard to individual circumstances, quite unjustifiable.

Meanwhile the national productivity amounted to only 60 per cent. of the pre-war; Germany was working with but half her strength, and her consumption exceeded production. At this juncture the country faced the truth, and began both realising and recognising that her working capital was exhausted and that, owing to the depreciated currency, credit was impossible to obtain.

November 1923 saw the creation of the Rentenmark and the official closing down of the Notenbank (money printing press). And with this initiation of the new stable currency we reach the most important turning point in the economic history of post-war Germany.

The "invention" of the Rentenmark was a stroke of genius, not only in its actual but in its moral effect, re-establishing confidence, and the belief in the currency being on a stabilised footing

again. It was, of course, only a temporary measure in itself, in the nature of a half-way house, but it saved the economy of the Reich from utter collapse, and while it could not take the place of a gold currency it acted as a bridge of safety thereto.

Its existence depended on the fact that the chief economic branches owning real estate in hand, namely Agriculture, the Banks, Industry, and trade and business in general, entered upon a heavy mortgage on their ground-property and enterprises. On this security the paper mark was stabilised, in the ratio of one billion paper marks to the Rentenmark. This stabilisation was possible first because it was subjected to very hard-and-fast limitations, and, secondly, because the German people, always workers, tired of the empty promises of Communism as well as of the incapacity of their political leaders, and at the last stage of desperation owing to want, were ready and willing to accept any fixed standard of values. In short, the folly of inflation had come home to the nation at large.

A sharp economic crisis followed at the turn of the year—resulting in stagnation in trade and much unemployment. The import of raw materials increased: foreign credits encouraged that of manufactured goods. April, 1924, when official

100 GERMANY'S INDUSTRIAL REVIVAL

and legislative regulation of credit came into active play, marked the end of this first stabilisation crisis. From April onwards, credit has only been granted by the Reichsbank, and this but to a limited extent and for two defined purposes—the restoration of export trade and for measures directly calculated to promote production.

The “Goldbestand” of the Reichsbank covering this period up to May, 1925, was as follows :—

1. 1. 1924	467,000,000 GM.
1. 1. 1925	759,600,000 „
1. 5. 1925	1,014,100,000 „

Figures for the “Notenumlauf” as compared with pre-war were :—

1913	1,958,2 Mill. GM.
1. 1. 1924	496,5 Trill. Papiermark
1. 1. 1925	1,941,440,000 GM.
1. 4. 1925	2,293,284,000 „

There followed hard on these developments a second stabilisation crisis—what has been well described by a leading German diplomatist as the “Crisis of Confidence.”

It was now that the complete lack of working capital, and the *necessity* coupled with the difficulty of procuring credit, became patent at every step. Prices declined in proportion as industry and trade were compelled to sell their stock. Bankruptcies increased to pre-war level, as the following figures make appallingly clear :—

1913	.	.	.	.	.	.	.	.	9,775
1922	.	.	.	.	.	.	.	.	984
1923	.	.	.	.	.	.	.	.	263
1924	.	.	.	.	.	.	.	.	6,033

Nothing, however, could be more strikingly illustrative of the prosperity which inflation had brought to the industrialists generally. • Meantime the number of firms coming under supervision and inspection with the working of the new financial *régime* (*Geschäftsaufsichten*) during the last six months of 1924 amounted to 2,477.

But with the restriction of credit, securities again began to come into the market; the Reichsbank accumulated enough reserve to safeguard the currency, and all restrictions imposed upon dealings with foreign exchanges were dropped. German currency was restored to its place amongst the currencies of the world. The confidence engendered by the Dawes scheme and the London Conference bore immediate result in the success of the German Loan flotation. Trade revived: demand increased: prices improved.

In November, 1924, came the issue of the new money, the calculating unit of the new Rentenmark being the pre-war, namely, 1/2790 kilo. of pure gold. For the guarantee of bank notes, security was fixed at 40 per cent. in gold and high value securities, with 30 per cent. of actual gold-security. It is provided that the remaining

102 GERMANY'S INDUSTRIAL REVIVAL

60 per cent. of the entire issue of notes must be covered by discounted bills and cheques, the bills to be only good commercial bills with a period of at most three months to run, and bearing three signatures.

An endeavour to balance the Budget was the next step, the Rentenbank supplying credit. Retrenchment began with separating from the Budget the expenses connected with the postal and railway services, they being now reorganised as financially independent administrative bodies. Dismissal of officials and the reduction of salaries and wages followed. Then came the drastic levying of taxes. A curious situation here arose. The taxation system based upon the conditions obtaining during the inflation period raised an unexpectedly and extremely large surplus; as a matter of fact it was paid in great measure out of the capital of the nation.

Now it is Germany's want of working capital which constitutes her credit problem. The national income has fallen from 40 milliards of marks to about 20 milliards, and her "working" capital is now only about 30 milliards as against a pre-war figure of 125 milliards. It is obvious therefore that if she is ever to produce again on a pre-war scale, she must amass some 90 milliards of marks (about £4,500,000,000).

It would not be possible immediately to utilise either foreign loans or home credits on such a gigantic scale—even if available—without endangering the currency again. From this point of view, therefore, recovery must be very slow, and the process of saving so as to accumulate the necessary capital in the country spread over a great number of years. It is also obvious that at this initial stage Germany can make headway only by means of a foreign loan—large enough to set her own internal sources of credit working normally again: not so large as to imperil the currency. She is at present supposed to be using foreign credit of about £100,000,000—a mere drop in the ocean; efforts to attract money from abroad have not been as successful as at first sight would appear. To come to the question of domestic credit there are four “primary” sources in Germany—the Reichsbank, the note-issue of the Rentenmark, the private-issuing banks, and finally the Mint. As we have seen, the Reichsbank in the interests of the currency stability is strictly limiting the amount of credit granted. The Rentenbank is in process of liquidation and in three years from date will have ceased to act as a note-issuing institution. The issues of the private note-issuing banks reach but 150,000,000 marks *in toto*, and the whole amount of coin in

104 GERMANY'S INDUSTRIAL REVIVAL

circulation in June of this year (1925) was only 400,000,000 marks.

There are other sources of credit, which are called "secondary" since they imply the utilisation of the same Reichsbank notes two or three times over. Of this nature are the credits granted by the Seehandlung Golddiskontbank (the Prussian State Bank), the private credit banks ("D" banks, etc.), savings-banks, insurance companies, post-office savings-banks, railways, and the Finance Ministry. For these issues are really only a re-lending of monies first set in circulation by the Reichsbank through the issue of notes against secured loans and bills discounted.

The measure of the real, as distinguished from the apparent, amount of credit in use, is therefore to be ascertained from the number of bills and securities held and the notes in circulation shown in the Reichsbank's weekly statements. As for the amounts which these "secondary" credits can supply, it appears according to recent statistics that the 81 credit banks in Germany have granted credit amounting to five milliards of marks as against twelve milliards in 1913. These figures show how exhausted are Germany's resources and how unsuited for long-term credit. It is also clear that enormous sums must be forthcoming from somewhere before her economic

life can function on anything like her pre-war scale. The question meantime to be considered is—How far and in what directions are her efforts likely to meet with success?

The main "secondary" source from which the working capital of the nation must come* is represented by the savings of the masses. In 1913 the savings-banks deposits reached twenty milliards of marks. Dr. Schacht, the president of the Reichsbank, reports that these, which in 1924 stood at £20,000,000, have now risen to £75,000,000 and £100,000,000, while similar improvements have taken place with regard to the deposits made with insurance companies and private banks.

These savings have not, however, as yet flowed into German industry, and German bankers declare themselves unable to finance it from their resources. Banks are, in fact, only granting credits to first-class firms at from 12 per cent. to 15 per cent.; in some cases interest is being charged at so high a rate as 16 per cent.

The defence put forward for these extreme rates of interest by the bankers is that they themselves have to pay 8 per cent. for money and that 12 per cent. is the highest average rate they can hope to receive. As regards foreign loans, which Dr. Schacht puts at from £75,000,000 to £100,000,000, about two-thirds has probably

106 GERMANY'S INDUSTRIAL REVIVAL

come from the United States. Interest charged is extremely high here too; the money raised by the A.E.G. and Siemens in America, nominally at 7 per cent., cost them 9 per cent. English banks have not loaned any considerable sums directly to German industry, although private banking houses, many of which in pre-war days were intimately connected with German finance and industry, have both directly and indirectly taken up large commitments. In some cases the transactions have only been book ones for the eye of the German tax collectors, the money lent remaining the property of the borrower.

The economic position at this juncture presents some unusual features. All balance sheets have been converted to gold standard; big banks and industrial concerns have written down their assets in ratios from 10—1 to 50—1. This step has borne particularly hardly upon the private investor, already depleted of nearly all he possessed through losses in Government and municipal stocks and mortgages, but the banks and industrial concerns have secured thereby immense reserves for themselves. The balance sheet of the A.E.G., for example, shows their assets reduced to about 14,000,000 marks, whilst in a debenture issue made in the United States it was affirmed that they represented some 200,000,000 marks.

The year 1924 should properly be considered as one so full of anomalies as to constitute a period by itself. From the safe judgment seat of Time it will surely come to rank in Germany's history as a landmark comparable with such years as 1870 or 1918. Statistics may be given—and accepted—for specific cases under consideration, but no generalisations based upon them are likely to be other than misleading: steps in progress may be pointed out, but they must be reckoned as steps just leading up or down and not necessarily to any goal.

It is obvious to the dispassionate onlooker that the high expectations of Germany at this moment, based on the two next momentous political and economic turns in her favour after Stabilisation—the London Conference and the Dawes scheme, both children of 1924—will be considerably modified when with time the full force of their conditions come into play. For it is on Industry that the extra taxation will fall; and while the workers are undoubtedly preparing to shoulder indefinitely lengthened hours of work, low wages, and deprivation of all luxuries, it does not follow that in the restricted world-markets of to-day, with increased competition and increasing endeavour elsewhere, even a doubled production on the part of Germany with lessened expenditure

108 GERMANY'S INDUSTRIAL REVIVAL

will necessarily solve the problem and enable Industry to bear the heavy future demands of taxation. At the present time the State aims at raising a yearly sum of between £250,000,000 and £300,000,000, which compares approximately with £800,000,000 revenue in this country. It must be remembered, however, that in England a large proportion of the money raised in taxation goes back immediately as interest on the National Debt, and is valueless to the Chancellor otherwise, whereas in Germany the internal State Debt has practically been abolished. Detailed comparison of finance between the two countries would in any case only be misleading: the systems and resources differ *in toto*. The principal fiscal expert of the German Socialist party, however, Dr. Hertz, comparing and criticising the British and German Budgets for 1924-5 in the Reichstag on May 5th last, pointed out that whereas the German surplus for 1924 had been obtained by "putting the screw on the masses," the British was the result of high taxes on property. Seventy per cent. of the German revenue for 1924, he stated, had been thus extracted; the amount from the wages and turnover tax, which from their nature were paid by the wage-earning class, being 3,100 million marks (£155,000,000), while the five most important property taxes had yielded only 1,700 million marks (£85,000,000).

He added that the same classes who were tax-free in Great Britain had contributed in Germany some . £75,000,000; that British death duties alone were higher than the income tax in Germany; and that although with us revenue was mainly derived from property, our expenditure on social welfare was yet far ahead of the German.¹

¹ According to statements in the German Press, German industry is passing through a severe domestic crisis, due partly to the heavy taxation, partly to the large contributions it has to find in connection with the Government's policy of Social insurances. It is difficult in most cases to verify statements of this kind, and with the object of justifying their correctness the North German woolcombers and spinners of Bremen-Delmenhorst have published a statement comparing pre-war with present conditions. Figures were prepared showing the amounts set aside for wages, salaries, social insurance, unemployment insurance, and taxes :—

	1913.	<i>First half.</i> 1924.	<i>Second half.</i> 1924.
Wages and salaries	100	145	156
Social insurance	100	229	259
Taxation on exports . . .	100	852	776
Taxation on home consumption	100	1345	1275

Railway freight prices have also been increased, as is shown by the subjoined table for Inland rates for raw wool :—

<i>Distance in Klt.</i>	<i>Year 1913.</i>	<i>June 1924.</i>	<i>Oct. 1924.</i>	<i>Dec. 1924.</i>
130 . . .	100	289	258	258
185 . . .	100	190	190	190
239 . . .	100	199	199	199
340 . . .	100	239	239	239
393 . . .	100	236	236	236

The figures for spun wool are as follows :—

130 . . .	100	228	203	203
239 . . .	100	218	194	194
285 . . .	100	214	191	191
340 . . .	100	207	185	185
393 . . .	201	180	180	180

110 GERMANY'S INDUSTRIAL REVIVAL

German taxation has undoubtedly been levied in an extremely erratic manner—some classes escaping altogether, others paying out of all proportion. The German Socialists claim in open debate that the burdening of the wage-earning class with an undue share of the taxation was the main cause of the present economic crisis, since this resulted from the absence of purchasing power among the masses. They assert that the policy followed had deprived the people of one-sixth or one-eighth of their purchasing power, and that this had led to stagnation in the food trades and strengthened the tendency of prices to rise, besides making it impossible for the wage-earners to save. The Government's new Budget and fiscal reforms are further declared to be a free gift to property, since the wage-earners' taxes were to be maintained at their present standard while all others were to be reduced by one-half. It is obvious that these statements cannot be accepted without considerable modifications.

Taxes in the case of manufacturers are collected in advance and on estimated turnover or on the Stock Exchange valuation of the share capital. This tax—1 per cent. to $1\frac{1}{2}$ per cent. each time an article changes hands—is one justly complained of as bearing no relation to profits and loss, and weighs especially upon the export trade—

particularly in the case of textiles, where an article changes hands continually in the processes of manufacture. The Corporation tax again is one which presses hard upon the manufacturer. This varies from about 2 per mil up to 10 per mil per month on the estimated turnover, without regard in the prepayment as to whether any profits are being made. The rate is graded according to the trade being one dealing in a raw material, or in a semi-manufactured, or in a finished product. There is also a charge of 1 per cent. on the monthly wage bill.

No new Reich taxes were introduced in the 1924-5 Budget, but in response to a general demand for a final and equitable assessment for 1924 alterations were made in the Income and Corporation taxes. These chiefly affected agrarian and trade interests. In January and March of this year—1925—certain modifications were also introduced in the system of advance payments of income tax so as to assist the professional classes, annuitants, and pensioners.

October, 1924, saw a reduction of the turnover tax from $2\frac{1}{2}$ per cent. to 2 per cent., this being fixed in January, 1925, at $1\frac{1}{2}$ per cent. The luxury tax was also lowered from 15 per cent. to 10 per cent. Other modifications may be briefly indicated.

Up to January, 1925, only direct export was free of the turnover tax: all exports are now exempt. This is a definite encouragement to the

112 GERMANY'S INDUSTRIAL REVIVAL

manufacturer. In October of 1924 taxes on Capital transactions, *i.e.*, Company taxes, with those on Securities, and on Stock Exchange transactions, were dealt with, as were also overdue and expired tax payments. These were Reich taxes.

As regards State taxes, the Prussian Finance Minister, on February 9th of this current year, issued a decree providing for the total or partial remission of the tax on landed property and of the House Rent tax in cases of special hardship. The House Rent tax amounts to 700 per cent. of the tax on landed property; before April 1st of this same year (1925) it amounted to 600 per cent. Half the revenue derived from this tax is used in the development of building activities. As regards the municipal and district taxation, the following are the principal emendations, 1924-5. Tax on trade, *i.e.*, 1 per cent. of the total wages, and not, as is erroneously stated in some quarters, 1 per thousand (or "*mil*"), was further regulated. If paid on the basis of the yield, then the amount payable in advance is fixed at 50 per cent. of the Income tax to which the owner of a business is liable. The tax on hotels and lodgings—in order to encourage visitors—was in Berlin and in most of the large cities wholly remitted. The Dog tax was fixed at

30/40 marks per animal as from April 1st of 1925. The Entertainment tax was lowered to 10 per cent. on each seat; in 1923 it was 15 per cent.

Up to April 11th of 1924 the Increment tax on real estate was 2 per cent. of the tax on the purchase of the property. This was altered to 30 per cent. in case of the sale of property purchased subsequent to December 31st, 1919. This innovation came to an end on March 31st, 1925.

The Church tax, taking Berlin as example, amounts to 15 per cent. of what is paid in income tax by the individual. Married couples are allowed a 10 per cent. reduction for the wife and for each child under age. The pre-war expenditure of the municipalities and districts which now form Greater Berlin came to about 355 million marks per annum. The Budget for 1925 provides for some 452 million marks: this represents an increase of 27 per cent. in the total expenditure over that of 1924. In 1914 the taxes of Berlin within its present limits amounted to 160-170 million marks; in 1924 to 230 million marks; in 1925 to 280 million marks.

The whole system of taxation is now undergoing drastic revision, to come into operation 1925-6, eleven Bills being under discussion before presentation to the Reichstag. The aim is to

114 GERMANY'S INDUSTRIAL REVIVAL

lighten industry, encourage the formation of new capital, and base taxation generally on actual profits earned and not as at present on turnover. Until these Bills have received the sanction of the Reichstag it is useless to discuss them at length; it will serve the purpose of this survey better to indicate what is foreshadowed on specific points as these arise. Taxation settlement naturally underlies every phase of German progress, since it is not the case of a rich, solvent nation overhauling a faulty system of taxation so as to readjust its burdens more equitably, but that of an Administration facing this problem:—How can confidence be revived so as to re-create capital; how can capital be so utilised as to restore confidence; how is taxation to be so balanced as to yield results which shall yet drain no class entirely of working power, recognising meantime how very small is the margin of safety?

The Dawes scheme—with the London Conference—is considered by responsible German officials as the turning point in German economy. An examination of its bearing upon industry finds a rightful place in the consideration of Taxation—for it is here that its difficulties and adverse aspects will eventually be realised. At present these are apparently discounted by the German nation in the relief of obtaining the Loan, coinciding so oppor-

tunely with the reacquisition of political commercial freedom on January 10th of this year, when the restricting clauses of the Versailles Treaty came to an end. In reviewing the Dawes scheme German opinion seems to focus on the extraordinary advantage to themselves of the recognition of the fact that Germany's debts are to be considered in relation to her capacity to pay—a common-sense conclusion which leads nowhere. The real crux is that this point once settled Germany has no longer any excuse for not paying; and the system which has been agreed upon as the one which would enable the reparation debts to be paid over without endangering German exchange afresh is therefore seriously to be reckoned with. Briefly summarising the provisions of the scheme, it is agreed that Germany, after a period of transition, which begins with a liability of one milliard marks (50 million pounds) for the first year, is to raise the sum of $2\frac{1}{2}$ milliard marks (125 million pounds) yearly, beginning from 1928–9. Half of this sum is to be raised out of the Budget revenues, for which purpose the taxes on alcohol, tobacco, beer, and sugar, as also the receipts from Customs, are to be specially ear-marked. The railways are to pay 660 milliard marks (33 million pounds) in the form of bonded interest. Industry is to

116 GERMANY'S INDUSTRIAL REVIVAL

furnish 300 milliard marks (15 million pounds) as bonded interest, and the remaining 290 milliard marks (14·5 million pounds) are to be secured by a railway transport tax.

There are just two contingencies affecting industry in particular in the form of future possible increases of taxation which should be noted. In the event of certain accumulations of capital in Germany—dependent upon the success of the necessary transfers abroad—being in default, there will come upon German industry, under the London Agreement and two years after signature, a burden of at least £5,500,000, increasing gradually to one of £62,500,000 per annum.

Secondly, by the time the interest on the reparation bonds just handed over by Germany under the London Agreement comes into full force, a levy of about 1 per cent. extra per annum will fall upon German productive capital.

Disabilities affecting the position of the manufacturing section of the community with regard to exchange and foreign tariffs will be touched on in connection with the state of post-inflation export trade; there is, however, one item of political finance which is of general moment to all property holders, namely, the attempts the Administration has made, under extreme pressure from the enormous body of persons whose inter-

ests are represented by the combined Valorisation Societies, to minimise the effects of the inflation on debentures and mortgages. In February, 1924, all mortgages then in existence were valorised on a gold mark basis of 15 per cent. of their paper mark value. It was stated officially that these, in marks, amounted to one-third of those existing pre-war. The existing mortgage burden on industry and property was therefore probably restored to about 5 per cent. of the pre-war. Mortgages were not to be executed for five years after the issue of the above law, in the case of these properties, although interest is payable. The owners of these mortgages want to get some measure of restoration on a gold basis applied to mortgages paid off *before* February, 1924, as also some writing up of State loans.

The Hindenburg election was largely won by the votes of those who were especially concerned in this matter, and the recent Mortgages Valorisation Bill passed on July 17th, 1925, through the Reichsrat and Reichstag, and which received the President's assent, is arousing bitter comment. The provisions are complicated, but, briefly stated, offer compensation at rates varying from 15 to 25 per cent. for mortgages and debentures, and from $2\frac{1}{2}$ to 5 per cent. on Government War Loans and certain other stock. Depreciated paper

118 GERMANY'S INDUSTRIAL REVIVAL

marks are expressly excluded from compensation. Amounts awarded are not due for payment until after a long period of years, only interest at a low rate being immediately payable. Compassionate allowances—where the total income does not exceed £40 per annum—are to be granted. The onus of proof in all cases rests on the claimant. The whole matter is to be dealt with by two newly-created administrative bodies, appeals from their verdicts to be permitted first before the Local High Court, and secondly before the Provincial Court. The Valorisation Societies are not prepared to let the matter rest in any case—and it will probably become an election *casus belli*. An interesting development may be quoted here in connection with this inflation scandal. In 1917 the Corporation of Bochum raised a loan in Swiss francs, and sent a Reichsbank note for ten milliard paper marks in liquidation. This sum was then worth about one-tenth of a penny. A Swiss creditor has just got judgment for payment at the current rate of gold exchange at the time, namely 78·75 francs per 100 marks.

The foregoing discussion on Taxation has brought into special prominence the position of the manufacturers, capitalists, and in general the employers of labour; consideration of the Wage question emphasises that of the other Partner in Industry—the Employed.

CHAPTER VI

POST-INFLATION PERIOD

FISCAL AND ECONOMIC POLICY (*continued*)

Status of Labour. Trade Unionism—Wages—Relation of Employer and Employed. Arbitration Courts.

It is important to remember, in comparing the present with the pre-war rate of wage in any industry, that to-day very much more is conceded to the worker in the way of unemployment benefits, with sickness and accident insurances. The share, moreover, of the employer is 8·7 per cent. of the wages paid as against 4·3 per cent. The wages actually paid are also misleading unless considered in ratio to the output—which stands now at 70 per cent. of the pre-war. Reducing the figures, however, to purchasing power, the official wage statistics published in November, 1924, showed that in 1913 the average wage per week in all the chief industries taken together was 34·35 marks (shillings); in September 1924 35·83 marks (36s. 10d.). Comparing the food prices in 1924 with those in 1913, it is officially stated that in October, 1924, meat cost 71 per cent. more,

120 GERMANY'S INDUSTRIAL REVIVAL

butter 77 per cent., eggs 125 per cent., milk 46 per cent., and bread 32 per cent. Prices since then have risen. But if we take the official compilations to show what is called "real wages," *i.e.*, calculated according to the index of the cost of living, we find that in September, 1924, miners were receiving only 89·7 per cent. of the pre-war wage measured in purchasing power, builders 97·2 per cent., woodworkers 100 per cent., metalworkers 90·9 per cent., and textile workers 93·6 per cent. The rates of pay per hour in the trades mentioned compared as follows :—

	1913.	September, 1924.
Miners	78 pfg. per hour	82
Builders	71 " "	81
Woodworkers	61 " "	72
Metalworkers	66 " "	71
Textile workers	47 " "	52

It must be strictly borne in mind that whilst "real wages" are calculated according to the index of the cost of living, this includes only the absolutely indispensable requirements, and that therefore these wage statistics show an exceedingly low rate of pay, judged from a normal standard of living.

The workers in the German shipyards to-day have a 54-hour week and the wages of a skilled German shipyard worker are 60 pfennig—equivalent to about sevenpence—an hour.

Ordinary labour earns about 35s. a week (taxed 10 per cent. before payment) and a 58-hour week is quite usual. According to officially published statistics of March, 1925, the hours of work and number of workmen in the heavy industries then compared as follows:—

	<i>Hours of work per week.</i>	<i>Number employed.</i>
Pithead workers	60-72	616,265
Employed below ground and 10% of those engaged in the working-up pro- cesses	48-54	934,885
Employed in the steel and smelting foundries and 90% of those engaged in the working-up processes	48	5,459,313
		<hr/> 7,010,463

The following statistics and facts are representative of what is actually in practice in Düsseldorf in the trades connected with the steel industry so recently as April of this year (1925):—

Lowest paid workman over 21 years of age 52 pfg. per hour. Skilled workers average 78-86 pfg. per hour. Head furnace men and those workers who have particularly unpleasant work 78 pfg. to 1 mark 30 pfg. per hour. The average pay for the works considered as a whole is 78 pfg., and the average working week amounts to 57½ to 58 hours. In some trades the working week has been reduced to 56 hours. It is by common consent of the employers and employed that the 8 hours a day regulation is ignored, overtime being reckoned as follows:

122 GERMANY'S INDUSTRIAL REVIVAL

On ordinary days 25 per cent. extra; Sundays 50 per cent.; Good Friday 100 per cent. Furnace men work between 58 and 68 hours a week, this last figure applying specially to what holds good in the Siemens-Martin works. A single man is taxed 10 per cent. income tax: a married man 9 per cent. A married man with one child 8 per cent. and with two or more children 7 per cent.

A striking and concrete illustration of the foregoing discussion on working conditions generally, is furnished by the following facts and figures relative to the great Siemens-Schuckert business. This concern has been increasing its numbers and profits 20 per cent. annually since 1914. In 1914 they employed 60,000 men; now in 1925 there are 97,000. Production per head of the workmen is at present 70 per cent. of the pre-war. One thousand working hours in 1914 in the machinery department, for example, produced 2,100 kilograms of definite result; to-day only 1,400 kilograms. Before the war the annual output was worth 40 billion marks; to-day 34 billion. If purchasing power in 1925 was brought up to the pre-war, the reduction in output comes to 30 per cent. In pre-war days 15 per cent. of the total production of Germany was required for the total expenditure of the Government and local authorities: this in November, 1924, had become 33 per cent.

The shorter number of hours now worked are considered the cause of the diminished output so far as this concern gives one. Forty years ago, Siemens introduced an 8-hour working day, but with reservations to work overtime in case of a boom in trade. If men worked overtime they were paid overtime—the rate forty years ago being 20 per cent. In 1914 the average hours worked was 8·85 per day. This average of hours was arrived at by dividing the total number of hours worked by the total number of men on the pay-roll. In 1923 it worked out at 6·9 per man. In 1924 it was arranged by mutual consent of the B.V.M.I.A. and the Berlin metal industry that one hour's overtime might be worked without having first to ask the shop stewards; the second hour to be only by their permission. The average output per man in 1925 is 7·8. All men who are now working on piece work are producing practically the same as before the war. Discipline in the factories is also gradually coming back. There is little difference, unfortunately, between the pay of skilled and unskilled labour, although here matters are improving. It is to be hoped so—as the result is to prevent workers caring to become proficient. The rate of pay in the Rhineland and Westphalian districts stands for this half-year—1925—at 45*s.* 10*d.* for a skilled workman if with a wife and two children; if unskilled 32*s.* 6*d.* per

124 GERMANY'S INDUSTRIAL REVIVAL

week. It is, however, reported from Essen that the Rhineland and Westphalian Union of Pit Owners are finding the economic position so bad that the present agreement as to wages and hours will be brought to a close.

The Federated Trades Unions have officially stated that the unswerving aim of German Labour is to secure "the full profit made by Labour, less only such costs economically necessary for the maintenance, improvement, and extension of the means of production." The report went on to say that wages should form at least the same proportion of the selling prices of goods as before the war—in other words that the purchasing power of wages should remain as pre-war and that the 8-hour day was to be universal, without reduction of wages. If these demands were put into practice it would, of course, mean that the whole cost of paying reparations would fall on the manufacturer.

As a matter of actual fact, the German Labour Unions are too poor to have any power: the conditions of wages, hours, and overtime are practically dictated by the employer. It may take anything from five to eight years before Labour through its Unions will be able to assert itself, and the strikes at present advertised are bound to fail; the recent railway strike so much

discussed in the Press actually included only 2 per cent. of the workers.

And it is not simply that Labour is badly organised and that the trades unions are poor—nor will any international Labour Union support radically affect the position. The crux^{*} of the whole industrial situation as between employed and employer in Germany is that each side is ready to sink individual advantage for the sake of the common weal in face of a common disaster. In other words, Germany is one in the determination to “make good.” Long hours are being cheerfully worked by all ranks; low wages are being accepted on the one hand, small or no profits on the other. Employers are ready to raise wages when the state of industry permits. All to-day in Germany know that a higher standard of wage and shorter hours are not yet possible; that increased production and meantime a generally low standard of living, with superhuman sacrifice on the part of every member of the Fatherland, is absolutely necessary to the continued existence of that Fatherland. It is in this spirit that confidence is justifying itself.

Germany has decided to face facts, cut losses, and start again from the bottom of the ladder.

To summarise generally as regards the labour market before considering relations between em-

126 GERMANY'S INDUSTRIAL REVIVAL

ployer and employed, it is of interest to note a few figures marking the proportion borne by the wage-earning and salaried classes to Germany's population in post-war as compared with pre-war years.

According to the last official census, in 1907, the whole working population of Germany amounted to about 28,000,000, of whom 14,000,000 came under the categories of Industry, Mining and Trade—*i.e.*, 50 per cent.; while Agriculture and Forestry absorbed some 8,500,000, or 32 per cent. The reduction of areas under the Peace Treaty, with other causes operating during war conditions, diminished the working population by about 3,500,000. But as Germany had increased her population since 1907 by some 5,000,000, the numbers holding in 1907 can fairly be accepted to-day as representative in the main.

According to expert opinion, as given to the writer in 1920, the ratio then of industrial to agricultural workers had gone back about 5 per cent. in disfavour of the latter class. A new occupation census was planned in June, 1921, but had to be postponed for lack of funds at the disposal of the Imperial department.

Of the 28,000,000 workers—duly accepting the above as basis for calculation—it is estimated that about 13,333,000 are organised in trade associations or unions.

It was only after years of struggle in Germany that the basic principle of all trades union activity—the right of the workers to combine—was legally conceded.

Under para. 152, Part 1, of Trades Regulations, they had had such rights, but circumscribed by penalties affecting strikes (153, Trade Regulations). These disabilities were not removed—and only then under pressure from the Socialists—till after the war, when new rights of confirmation were obtained by Article 159 of the German Constitution :—

“Liberty to combine for the purpose of maintaining or improving conditions of work and pay is accorded to everyone and to all trades, and any agreement or measure which has for its object interference with this liberty is illegal.”

There still exist, however, restrictions with regard to incitement to strike, intimidation, and so on, which can bring the workmen within reach of the criminal law.

German trades unionism has always been, and still is, divided into three parties. The first trades unions had their origin in 1869 in the Radical party under Max Hirsch and Franz Dunker and are still known as Hirsch-Dunker unions. Later the Socialist party formed the

128 GERMANY'S INDUSTRIAL REVIVAL

so-called "Free Unions," and in 1890 arose the Christian Unions, closely in touch with the Centre party under Stegerwald. The three divisions, therefore, take their origin and complexion from the three political parties—Liberals, Socialists, and Centre party.

The strongest of these trades union parties is to-day the Socialist, comprising 52 groups with a membership of about eight and a half millions, amalgamated in the "General Union of German Trades Unions" (*Allgemeiner Deutscher Gewerkschaftsbund, A.D.G.B.*). The largest group, with approximately 1,600,000 members, is the German Metalworkers' Union. Next come the German Landworkers' Union, the Factoryworkers' Union, the G. Transportworkers' Union, the G. Railwayworkers' Union, and the G. Textileworkers' Union, with a membership of 600,000 each. The chief leaders of this division are: Wissel, Leipart, Umbreit, Hue, Diesmann and Schlicke.

The next important party is that of the Christian Trade Unions. Founded in opposition to the materialism of the Socialists and representing Christian Socialism and anti-internationalism, the 25 groups combined in the "General Association of Christian Trade Unions" (*Gesamtverband der Christlichen Gewerkschaften*) comprise about one and a quarter million members. The strongest

of these groups are, again, those of the Metalworkers, the Miners and Landworkers. Among the leaders of the division are Stegerwald and Giesberts.

The third party consists of the unions of Hirsch-Dunker origin, with politics founded on Friedrich Naumann's conception of democracy, united in the Association of German Trades Unions (*Verband der Deutschengewerkvereine*), under the leadership of Erkelenz, with a membership of about 300,000.

Besides these three parties there are the so-called "yellow" trades unions. Before the formation of the Union of Employers and Employed in 1918 they were supported by the employers, and have thus ceased to be really representative of the workers, having besides no official bargaining powers.

Finally, we have the Union of Free Workers (*Freie Arbeiterunion*); these are Syndicalist and Communist bodies, with revolution by means of general strikes and sabotage as their object.

Corresponding to the workmen's unions are those of the employees (office or black-coated workers), which have only succeeded in consolidating themselves since the war. They are naturally not so numerically strong as the workmen's unions, but are divided into the same three

130 GERMANY'S INDUSTRIAL REVIVAL

divisions. Corresponding to the A.D.G.B. is the General Association of Free Employees (*Allgemeiner Freier Angestelltenbund*—"Afabund."), with close on 700,000 members. Of these nearly 400,000 belong to the Central Union of Employees (*Zentralverband der Angestellten*). The "Afabund," like the A.D.G.B., is international in sympathies and affiliated to the International Federation of Trades Unions, with headquarters in Amsterdam.

Corresponding to the General Association of Christian Trades Unions (*Gesamtverband der Christlichen Gewerkschaften*) is the General Federation of German Employees' Unions (*Gesamtbund Deutscher Angestelltengewerkschaften*), with a membership of about 450,000, and including, among others, "The German National Union of Clerks" (*Deutschnationaler Handlungsgehilfenverband*). The General Association of Christian Trades Unions and the General Federation of German Employees' Unions together form the Federation of German Trades Unions (*Deutscher Gewerkschaftsbund*), of strong Christian-nationalist sympathies.

The third division of the employees' trades unions is the Union of Employees (*Gewerkschaftsbund der Angestellten*), with a membership of about 350,000, corresponding to the Hirsch-Dunker Unions among the workmen's unions.

These two together form the "Federation of German Workers, Employees and Civil Servants" (*Gewerkschaftsring Deutscher Arbeiter Angestellten und Beamten Verbände*) and are Liberal in their politics.

The Civil Servants compared with the workers and employees are weakly organised, and by reason of their calling can form no characteristic trades union movement, as, though the great trades union weapon, the strike, is not forbidden them, it is not countenanced in their case by the present Constitution, as its use by Civil Servants would imply the State divided against itself.

The problem of the revival of industry was taken in hand before the end of the war, and the workers' guilds and trades unions co-operated with the employers so as to provide an adequate number of workmen to deal with difficulties in reconstruction.

In November, 1918, a genuine and patriotic effort to promote harmony with the best possible output was made in the formation of the Central Union of Industrial Employers and Employed (*Zentralarbeitsgemeinschaft industrieller und gewerblicher Arbeitgeber und Arbeitnehmer Deutschlands*), described succinctly as an attempt "to guide both parties into the productive stream of solidarity of interests."

132 GERMANY'S INDUSTRIAL REVIVAL

Unfortunately, the German Metalworkers, with other important unions, left the combine in 1922, and this action broke up the fellowship. Its ideas lost ground and only a narrow majority of 3,803,230 votes against 3,582,429 prevented dissolution.

As, however, it is earnestly hoped by the present Ministry of Labour that in some form or other this union will be restored to full activity—a significant sign of the present determination of Government, employers and employees alike to co-ordinate for the common good—details of its working programme are of interest. They were :—

A. The recognition of the guilds and trades unions officially as representing the workers.

B. Collective agreement as regards wages and conditions of working.

C. The establishment of a works committee for all trades employing fifty persons.

D. The settlement of the hours of work (eight hours a day) by means of arbitration boards.

Industries under this scheme were scheduled under fourteen heads :—

Iron and metals.
Food and necessities of life.
Building industry.
Textile industry.
Mining industry.
Quarrying industry.
Wood and timber.

Clothing industry.
Paper industry.
Transport industry.
Glass and porcelain
Chemical industry.
Leather industry.
Oils and fats.

Each of these industrial groups was to have a (State) works association, the head of which was to be the Central Committee, the latter appointing a committee or board of management to carry out its decrees.

Each works association meantime was divided into groups, and these again were subdivided, so that the system, instead of being centralised, became provincial and local.

The wages and working conditions of each class of employment could thus be regulated in and by each district, the State acting as supreme "auditor."

Other methods for settling industrial disputes have meantime been found by improved forms of arbitration boards. Arbitration was formerly exercised by specific Courts, such as the mining, the merchant, the seamen's, and so on. These mediated in disputes between employer and employed.

The Imperial or State authorities generally intervened in all important cases not already provided for, and appointed arbitration boards. Special arbitration committees, in addition to these Courts, were instituted by the Auxiliary Service Law of December 5th, 1916, and to these each party—employers and employed—sent their representatives, two permanent and one temporary.

Later, in accordance with the ordinance of

134 GERMANY'S INDUSTRIAL REVIVAL

December 23rd, 1918, arbitration boards specially acquainted with the various trades were set up, and a new central arbitration board was instituted in the Imperial Ministry of Labour.

The chief duty of the arbitration boards is the settlement of general conflicts between the body of the employed on the one side and that of the employers on the other, and their importance considerably outweighs that of the Labour and other Courts, as the Labour Courts only settle wage disputes. The year 1921 was little troubled by industrial disputes, but in the second half of the year a renewed fall of the mark, and consequent rise in prices, embittered the economic situation and the Arbitration Court was kept busy.

Except for the Communist coup in Central Germany, in the spring of 1921, which pursued political objects with the help of strikes and the terror of the masses, the troubles in the industrial world during 1921-4 resulted mainly from the interpretation of Trades Council Law and tariff treaties.

The year 1918 marks a definite change in the personal relationship of employer and employed, the outcome partly of the general disruption, partly of the actual alterations above noted in methods of arbitration. This change was succinctly described to the writer as one "from the

patriarchal to the Parliamentary system.” From personal observation (1924 and 1925), however, it appeared that, certainly so far as Krupp’s great works were concerned, the old good feeling held. There exists here a wonderful garden city for the accommodation of the workpeople, excellent provision in the way of almshouses for the old-age pensioners, whilst every care is taken to ensure the health and safety of those employed. This same good feeling was also apparent in the A.E.G., the Siemens-Schuckert, and some few other works—discipline maintained, with confidence on both sides.

Theoretically, however, the employer in Germany to-day does not deal with his workpeople *en masse*, nor with the individual workman or official, but with the trades union deputy, he acting, so to speak, for the elected representative of the particular branch of industry in question.

With this legalising of the trades unions the situation has, generally speaking, become stereotyped and the “links” impersonal; in result actual negotiations have become easier. It will also be clear that the relations for good or ill between an employer and his workpeople are dependent on the personality of the deputies, as is also the matter of strikes. It is said that the weapon of the strike will be used in the future

136 GERMANY'S INDUSTRIAL REVIVAL

altogether in the settlement of disputes, political or industrial. Meantime the tendency, politically and industrially, is towards the creation of a definite Labour party. Whether Labour will, however, ever be in a position to unite politically or, on the other hand, so to coalesce socially as to be in a position to strike as one man seems doubtful.

The position of the Labour unions (*Gewerkschaften*) in Germany, which was extraordinarily strong after the political upheaval, has weakened of late, and they are now, in 1925, practically where they were. This appears to be due partly to the fact that inflation depreciated their funds, partly to the disrupting policy of the Communists dictated by Russia, partly to the feeble sense of co-operation in the direction of organisation possessed by the people at large. The inevitable conclusion, therefore, is that for the present no great cohesive movement is to be looked for.

The spirit of Communism is not strong, nor is it widespread. It lost ground this last year in proportion as economic conditions improved. At the election of December 7th, 1924, the Communist party actually polled over a million votes less than in the previous May.

There is a tendency to Communism noticeable amongst the younger generation, but unless there

is a great increase of unemployment no danger is anticipated. There may be strikes presently, for wages are too low and the 8-hour day must come, but the feeling between masters and men is steadily improving, and a definitely conciliatory spirit is actuating the leaders in high commercial circles.

The employers have still much to learn, but it is obvious that they are ready to listen. It is not very likely in any case that the German work-people would go to lengths which would involve destruction of plant or machinery; they are at once too intelligent and too interested in their work for its own sake.

So, while it is true to say that the attitude of mutual co-operation between employer and employed in commercial and industrial undertakings, which was so marked a feature in Germany up to October, 1918, had up to 1923 considerably lessened, and that the effect of the war has naturally been to weaken the sense of discipline, the *morale* of the Germans in this respect has suffered no more than has that in other countries, and there are signs everywhere of the rise of a new spirit of enterprise and co-ordinated effort to retrieve lost ground so far as commerce is concerned.

CHAPTER VII

POST-WAR ADMINISTRATION

DEPARTMENTAL LEGISLATION

INDUSTRIAL AND FOREIGN POLICY

Government Departments for dealing with Economic Questions.
Legislation for the Protection of Industry—Conditions relating to Coal-mining—Shipping—Mathematical Instruments—Glassware—Toys—Electrical Industry—Chemicals—The Dye Industry—Machinery for Promoting Export Trade.

CONSIDERATION must now be given to the Government departments explicitly concerned with industrial questions, noting the measure of assistance granted to industrial undertakings and foreign trade. At the head stands the Reichshandelsministerium, to which is attached the Reich's Commissioner for Import and Export Concessions. Next in importance comes the Reichsarbeiterministerium, occupied with the social aspects and conditions of wage-earners generally and having the supervision of all matters to do with Labour, its dependent organisations including the Office of National Insurance. The whole machinery for dealing with Labour was nationalised by the law of July 22nd, 1922.

The Reich's Statistical Department in its publication, "Commerce and Statistics," supplies twice a month very exhaustive information with respect to present business questions.

The Reichshandelsministerium is important, as before it Government must lay all social, political and economic proposals previous to their presentation to the Reichstag. It has further to be consulted before the issue of any special regulations of a commercial order and possesses the right of initiating laws. There are 300 members, chosen from all classes. The Reichstag and the Government each appoint 12. Prussia and all the great divisions of Germany have their own national Ministries. Meantime, as previously indicated, a considerable change has taken place in the relations between Industry and the Administration owing to the post-war re-distribution of the political parties. It is obvious to-day that the creation of the Reichswirtschaftsrat has forged a strong link between them—far stronger than existed in pre-war days.

War conditions brought about the control of a certain series of the raw-material industries: the management vested in self-elected bodies. As business recovered, readjustment in the ordinary course of affairs became inevitable, and at present only coal is under special administration. This

140 GERMANY'S INDUSTRIAL REVIVAL

is secured by the Reichskohlenrat, consisting of 60 members, chosen from the ranks of the contractors, official staffs, miners, and coal-merchants, together with the body of the coal consumers which in this connection includes the railway and shipping interests. Subordinate to the Reichskohlenrat we have the Reichskohlenverband; it is an association of the syndicates of the fuel and combustible industries, and regulates the affairs generally of the syndicates, together with the internal economy of the individual mining company. The Reich, through the Reichswirtschaftsrat, has the supreme control of the coal industry organisation as detailed above. Coal production was put on a national basis both by the law of the 23rd March, 1919, and by certain minor regulating clauses issued in connection with it. The official arrangements aim particularly at the fixing of coal prices. These have been kept artificially low and are based on the actual cost of production, this itself being regulated through the Reichskohlenrat. The distribution of the coal mined is effected by the Reich's Commissioner for Coal Distribution and is so arranged as to ensure that deliveries in accordance with the Treaty of Versailles are given precedence. The quantity of coal remaining for distribution within Germany is shared out in such a way as to allow

every consumer some part of what he demands or requires.

In 1922 work in the coal mines was being carried on during two working shifts of seven hours each per day, a third shift being devoted to repairs and preparations, etc. Mine workers were then working forty-two hours per week. In the lignite mines, work was performed during three shifts of eight hours each.

In order to provide for the safety of the miners, Germany has introduced a very strict and elaborate mining legislation, and the country appears to be well abreast of all other nations in care for the security of her workers.

The question of the coal output in connection with that of under-production generally, has already been dealt with. It is of some interest, however, to note that up to the entry of the French into the Ruhr Valley, the official representatives and the newspapers of Germany stated that the quantities of reparation coal which had to be delivered could not be furnished because the railways and the industries lived from hand to mouth, and had no reserves. As soon as the French had entered the Ruhr district and cut off the supply, those who had hitherto maintained that Germany had no coal to spare and so could not pay reparation coal in full, declared that large reserves had been

142 GERMANY'S INDUSTRIAL REVIVAL

accumulated by the railways, by the local authorities, by the industries and by the coal merchants, and that Germany could manage without any coal from the Ruhr for a very long time !

Passing to the consideration of other industries and their handling it must be pointed out that State assistance is not limited to direct legislation in connection with the specific industry. So that while, up to 1922, there were no special laws for the purpose of definitely protecting this or that industry, yet certain measures taken ostensibly for the good of the general public, did *de facto* render a positive service to individual classes of industrialists—although frequently detrimental to others.

The cost of production, for instance, was diminished by fixing the price of bread and by keeping coal prices down. Again, during the food scarcity, a levy upon agriculturists by the so-called "Getreideumlage" increased public resources by some 2,500,000 tons of grain. While yet another example of one class gaining at the expense of another is to be found in the regulation fixing rents: in many cases these reached so low a level that they came to but 1 per cent. of pre-war rates—tenants profiting as against the landlords.

Of the same nature, since its results differed from

expectation so materially, was the German-Dutch agreement of October, 1921.

This agreement was made after the war, and by it Holland granted to Germany a credit on the basis that Dutch merchants were to supply German industrialists with raw materials and to receive manufactured goods in exchange, the Government providing the necessary funds. That agreement inflicted as a matter of fact a good deal of injury upon Dutch business. Germany dumped large quantities of goods in Holland, especially cigars, furniture, boots, and clothing, and German business men have even been retailing these goods in Holland in shops of their own.

A characteristic of the industries which manufacture scientific instruments and apparatus, optical goods, and other mechanical products of a highly finished nature is that such widely varying prices obtain in the domestic as compared with the foreign trade. The German makers of this class of production are interested in seeing such articles used in Germany, because they can discover only after trial by the experts whether they actually fulfil requirements. In order to be able to submit their wares to this practical test and have the opinion upon them of German experts, the manufacturers are willing to sell at a low price in Germany itself : they look to be compensated for loss by profits

144 GERMANY'S INDUSTRIAL REVIVAL

made from the subsequent sale of their goods abroad. In so far as highly finished articles of this kind are concerned, no foreign competition is feared : the export trade is considered satisfactory and its volume equals about 50 per cent. of the pre-war. Foreign firms have bought largely and industry has not suffered from shortage of either raw material or labour.

The export business of the toy industry—almost exclusively export, for of the toys made, only from 5 per cent. to 10 per cent. are actually sold in Germany, the rest chiefly to the U.S.A.—is very important. Production in 1923 equalled 50 per cent. to 60 per cent. of the pre-war. During the war foreign competition in toy-making strongly developed, but is now abating ; Germany has this industry almost entirely in her hands. The making of mechanical toys for educational purposes has expanded lately in a particularly satisfactory manner to the Germans, the United States being the principal customers for these. The toy makers, as a whole, look with confidence into the future. At the moment, it is true, difficulties with regard to the purchase of tinplate have to be overcome, for the German works are furnishing only the thick, and so toy makers have had to purchase their thin tinplate from England. On the other hand, the prices for wood reached a

world level some considerable time ago, and wood forms a very large and constantly increasing percentage in the cost of production of wooden toys.

No synthetic dyestuffs were used at all in the world's textile trade before the year 1856. About that time an Englishman, Dr. William Henry Perkin, made the startling discovery of obtaining aniline dye from coal tar, first bringing out an indigo.

England being a free trade country there was no possible method of protecting this industry in the land of its origin, and although dyes were for some time made in England, Dr. Perkin could not get the financial backing of any of the big firms so as to establish it on a large scale. In course of time the great chemical nation, Germany, working upon Dr. (subsequently Sir William) Perkin's discovery, placed on the market a wide range of synthetic dyes, presently dominating the markets. Thus there came into being one of the most gigantic combines the world has ever known.

It would be interesting to work out the effect of this neglect on the part of England, in its far-reaching results, with regard to the Great War, since the manufacture of dyes, chemicals, and high explosives are synonymous. The peaceful indigo becomes a war dye; sulphur colours can be changed into lyddite; direct cotton colours are

essential for rockets, camouflage and anti-actinic materials. Antidotes, antiseptics, and drugs are all obtainable from synthetic dyestuffs, to say nothing about the plant and machinery which during a war can be immediately turned over to poison gas-making with all its kindred horrors.

Not only was our dye trade largely paralysed during the war owing to the fact that dye-making in England was on a very paltry scale—for in pre-war days Germany supplied 80 per cent. of the dyes used in the United Kingdom—but the end of the war was delayed because the necessary plant and buildings had to be erected to supply our armies with these munitions of war. In Germany the plants were ready for instant use.

Owing to the different legislative measures brought in since 1914, the position to-day is, that whereas prior to the war we imported 80 per cent. of our supply and manufactured 20 per cent., only 20 per cent. of our requirements now have to be imported, and the number of colours that are allowed in under licence is being automatically reduced as manufacture here becomes possible. This state of affairs is due to the action of the Dye Regulation Bill. It is the considered opinion of practically everyone in the trade that if the barrier of the Import Bill is removed the British industry will not survive German competition six months.

The German Dye and Chemical Cartel is one of the most powerful and dominant trusts in the whole world. Its resources are gigantic, and owing to its huge production and being forty years ahead of us, Germans are able to manufacture dyes at present at half the price we can. Of course, the deflated exchange has helped them. Briefly, the position now of the G.D.C. Cartel is stronger than in pre-war days.

The German chemical industry in particular is more developed and working with a greater degree of co-operation than ever, while 85 per cent. of the raw materials Germany requires for it are still home productions. The nitrogen works at Oppau alone are capable of producing more nitrogen products than are wanted by the German farmer and German industry. There are eleven large chemical works, six dye combines, three nitrogen-producing works—including Oppau—five works producing explosives, and three carbide concerns, whose share-capital to-day represents but a fraction of the real value in gold marks of the plant and machinery, all of which is of the latest design. Nearly three thousand million marks is practically represented: the real value of the undertakings probably greatly exceeds this in gold mark equivalent. All or nearly all have the value of plant and machinery written down to the lowest possible value, and most have inter-

148 GERMANY'S INDUSTRIAL REVIVAL

linking directorships and work in the closest combination of interests generally.

Electrification of railways is proceeding at a great pace; telephony and wireless are being energetically developed, whilst tramway extension and replacement is opening out in an extremely prosperous manner—owing really to the German people being not yet quite aware of the value of their re-established currency! The cheapest tramway fare is still 15 pfennig, and the profits are enormous. Improvements can easily be met therefore out of revenue. All electrical firms are extremely busy with the supply of industrial motors.

Not only are electrical methods superseding others in all directions, but the present call for industrial motors is overcrowding the electrical shops. This demand is coming in the main from the small house-industries, which from shortage of men and labour during the war had practically disappeared. They are now springing up again all over the country and are being greatly helped by the cheap supply of current.

The shipping industry calls for a detailed examination. State subsidisation has notably affected its growth, both before, during and after the war: this branch of German trading is likely to play a considerable part in the near future as regards German economic recovery.

In 1885, German shipping firms being no longer able to cope with the growing demand for German shipping consequent upon Germany's increasing importance as a commercial power, particularly with regard to Africa and the Far East, a subsidy of 4,400,000 marks was voted for fifteen years to maintain two lines of shipping: one—a main line—to Eastern Asia and Australia, and a second, a branch line, to Trieste, Brindisi and Alexandria. Slight alterations were made with respect of these routes in 1887 and 1893.

In 1898 a second sum of 1,500,000 marks was voted to establish a further line to China, and an agreement was entered into by the Government with the North German Lloyd for the whole undertaking, to cover a period of another fifteen years. Ships were run from Bremerhaven and Hamburg to Shanghai and Yokohama, calling at a Belgian and Dutch port by request; and there was a line from Hongkong to Shanghai. Other lines were run from Singapore to New Guinea and from Bremerhaven *via* a Belgian or Dutch port to Sydney.

The yearly subsidy for these undertakings was settled at 5,590,000 marks, and an arrangement made by which the German Government was to receive a portion of all profits over a certain percentage. Various alterations were made in

150 GERMANY'S INDUSTRIAL REVIVAL

these routes, the services also being somewhat increased, from time to time, up to 1904.

In 1908 other alterations were made in the routes, and negotiations again entered into with North German Lloyd which resulted in the granting of further subsidies in 1908 and 1909, until the whole yearly subsidy for the mail steamer traffic with Eastern Asia and Australia amounted to 6,090,000 marks. In addition to this, in 1890 a subsidy of 900,000 marks per annum for ten years was granted to the German East African Line, and this was increased in 1900 to a yearly grant of 1,350,000 marks for fifteen years. Under this agreement lines were run with some frequency to East and South Africa. The German Empire spent in subsidising its mail services about 7,440,000 marks per annum, as against 30,000,000 spent by Great Britain, 22,000,000 by France, 15,000,000 by Italy, 8,000,000 by America, and 15,000,000 by Japan. These figures do not cover the highly developed arrangements extant in non-German countries for subsidising shipbuilding, equipment, etc., etc.

Besides this, in order to encourage the growth of German dockyards, all subsidised shipbuilding concerns were obliged to have their ships built by German works and of German materials; a special duty on shipbuilding materials was imposed in 1898.

The consequences of the Peace and of the reparation deliveries: upon the German shipbuilding industry may be briefly summarised.

Generally speaking, the deliveries of floating docks, derricks, and similar stock did—though only for a short time—impede it, while the uncertainties of the currency, as was the case with all German industries, militated against contracts being carried out strictly to date. For this reason in particular the writer found it extremely difficult to make really precise calculations where orders which needed much time for their execution were concerned. The handing over of the German ships has, however, stimulated construction and favourably affected the industry. German ship-owners have given large orders for new ships to German builders, and many new shipbuilding concerns have actually been formed. It is obvious to any observer that the German shipping yards have been greatly enlarged both during and after the war, while the mechanical plant has undergone all kinds of improvements. The general capacity of the industry has become very much greater than before the war, not only for this reason but also because the establishments which were occupied with warship building are now freed for the construction of merchant shipping. Nearly all the great warship building yards had facilities for constructing merchant vessels also; and they did,

152 GERMANY'S INDUSTRIAL REVIVAL

in pre-war days, actually build such. Therefore no radical and fundamental reorganisation of these establishments has been necessary in any of the non-Government establishments. The Government dockyards were, of course, wholly given over to warship construction, though their main work was with the fitting out and repairing of the vessels.

One other asset may be reckoned in here as regards the post-war shipping prospect—that of repairs to foreign craft. In pre-war days, although orders for construction were not very frequent, a considerable number of vessels belonging to other nations came into the German docks for repair, re-conditioning and breaking-up—this last item referring mainly to warships. With the conclusion of the Anglo-German Treaty and the permission for German seamen to take service again in the British mercantile marine, the Germans will undoubtedly have reason to consider their trade—in our direction at least—as likely to return.

In 1917, the raising of a loan was contemplated for the strengthening of German shipping, but this was nullified by the Treaty of Versailles, and in the depreciation of the currency and the protracted negotiations consequent thereupon, the sums available melted away. As the result of the war and of confiscations under the Peace Treaty, the German merchant fleet was reduced to 8·2 per cent. of its pre-war strength, and by June 30th, 1920,

only 419,000 tons remained of her 3,135,000 tons of shipping, which represented 0·78 per cent. of the world's mercantile marine. By 1923, however, Germany had succeeded in restoring one-third of her pre-war shipping, so that its strength was rather over 2,000,000 tons, placing her next to France in this respect—five years after having lost the war!

Direct and frank confirmation of these facts and of the spirit that Germany is showing was given at the special general meeting of the Hamburg-Süd-Amerika Line so lately as November 24th, 1924, by Herr Max von Schmickel. He pointed out that though the company had lost its entire fleet as the outcome of the war, it had been enabled by the compensation granted it by the German Government to reconstruct one-third of its former tonnage. He added that the company had ample reserves, but that the further reconstruction of the fleet needed fresh capital. The capital of the company was recently converted from a paper basis into one of 20,000,000 gold marks (£1,000,000), and it is now proposed to raise another five million gold marks (£250,000) for building and organisation-extension.

Since the issue of capital below par is illegal in Germany, he proposed that the amount should be allotted to existing shareholders at 80 per cent.—the remaining 20 per cent. being taken from the reserve.

154 GERMANY'S INDUSTRIAL REVIVAL

There is every indication that Germany is making strenuous efforts to recapture ~~the~~ the world's shipping trade; it is part of the German mentality to make no concealment of their intentions or their prospects. Certainly the inference from the above statements is that the Hamburg-Sud-Amerika Line is in a very strong position—if able to draw in this way upon its reserves, and at the same time enter upon a costly rate war, such as appears to be contemplated if we may accept at face value the reports of the recent South America Traffic Conference. Herr von Schmickel made no secret of the fact that the German shipping companies expected to wage a successful war during the coming winter against foreign competitors, and gave a clear outline of the policy to be pursued. Germans were determined, he said, to hold the field, and were preparing to put on the most modern and convenient of types of vessels, and show the utmost consideration in the treatment of passengers and freight. All the directors of other lines maintained the same tone—and the expectation of further help from their Government is looked for. Particular attention should be paid to developments as regards the emigration transport facilities—Germany's pre-war methods for capturing the trade here by means of her "control stations" will be remembered. Before the war

German vessels carried 42 per cent. of the emigrant trade, and although the Peace Treaty (Articles 322 and 327) made certain provisions designed to prevent Germany's recapture of the emigration trade, means are already being considered whereby these may be evaded: restrictions as regards entry into the United States, for example, are being met by turning special attention to South America. There is undoubtedly a steady building up of overseas trade from Hamburg and by Hamburg merchants—Germans are as united and as ambitious as in pre-war days in their intentions. And when to the avowed determination of directors and company promoters we see linked the willingness of German seamen to do all the loading and unloading of the ships—and behind both a Government whose assets are steadily being stabilised, we may predict that the competition struggle, of which Herr von Schmickel speaks, is extremely likely to succeed unless immediate steps are taken, supported by British finance, the British Government and Labour, to checkmate this German effort.

Germany's foreign trade stands under the control of a special organisation and official, the Reichskommissar für Ein- und Ausfuhrbewilligungen—the Commissioner for granting import and export licences)—publishing regulations for the

156 GERMANY'S INDUSTRIAL REVIVAL

control of the foreign trade. Every branch of industry has its foreign trade office (*Aussenhandelsstelle*). There are forty-six of such offices altogether, which, as a rule, have been created by voluntary agreements among the organisations of employers and employed. Thus the control of the foreign trade is in the hands of semi-official elected bodies which govern themselves.

The various offices controlling Germany's foreign trade regulate, in the first instance, the prices at which goods are sold, with a view to prevent the selling of German goods abroad without profit or at a loss. Such price control has been justified, because in consequence of the decline of the mark German goods would during the inflation period have been sold far too cheaply abroad unless a check had been applied.

In order to give to the community a share in the profits which are yielded by the export trade, the so-called Social Export Duty was introduced by law on the 20th December, 1919. Nearly all exported goods are charged with this social export duty. The rate of taxation is from 1 per cent. to 10 per cent. and the export duty was considerably increased as from the 1st September, 1922.

Measures similar to those which England has introduced by its Export Credit and Trade Facilities Acts and various orders and regulations, with a

view to stimulating the export trade, are unknown to German legislation, and no subsidisation in the commercial sense of the word took place before the war, exports being, as stated in Chapter I, encouraged by well-arranged systems of customs and railway duties. Indications for a desire for protection have been noticeable since 1877; the customs tariff of July 7th, 1879, marked the stage when German opinion turned definitely away from the policy of free trade. The system of protection by duties, though modified by certain trade agreements, continued to be amplified, particularly in 1885 and 1887, up to December, 1902, when a great increase in special trade duties took place.

The war automatically removed the necessity for protection and all industries were made subservient to the needs of defence. All export was forbidden, with the exception of coal and certain manufactured goods, in exchange for which necessary food and raw materials were imported. This prohibition was only gradually removed after the war, out of consideration for the needs of the home population. According to Dr. Preuss, Germany sees no hope of an independent Trade Policy until after October 1st, 1925, as by the Versailles Treaty she is bound to give most-favoured-nation treatment without reciprocity to all other parties to the Treaty. The minimising

158 GERMANY'S INDUSTRIAL REVIVAL

of the effect of this clause in the Treaty, due to the favourable opportunities for ~~export~~ brought about by the depreciation of the mark, was (he tells us) only superficial, and merely resulted in the exhaustion of Germany's reserve supplies. In proof of this Df. Preuss bids us note the balances in gold marks of the limited liability companies after the stabilisation of the currency, and adds that owing to lack of money and credit trade is in a state of stagnation, while the State, for reasons of fiscal policy, can give very little help. Trade balances, it is said, show liabilities of about 3 milliards of gold marks per annum.

Before the war, as has been indicated, a carefully arranged system of railway tariffs, in particular for such goods as coal, metals, stone and wood, was calculated to help export by stimulating sales, and protecting trade against foreign competition in coastal and frontier territories. Special tariffs for seaports were also arranged so as to encourage export through German ports, with its attendant advantages to German exporters and shipping firms. Directors of railways were allowed to make special terms for the furtherance of trade in their districts, subject to the approval of Government. From reasons of fiscal policy all these special tariffs were abolished in 1923 and replaced by an adjustable tariff with a so-called sliding scale—i.e., the more distant the zone, the

less the duty per kilometre. On account of the present difficult state of trade special tariffs for certain raw materials, among others coal and metal, have been re-introduced to a limited degree, in order to increase the competitive capabilities of German manufactures.

Export and import statistics for January, 1925, show an import of about £68,000,000 and an export of about £35,000,000. Imports increased by about £3,500,000 over the previous month, whilst exports diminished by £2,000,000. A considerable amount of the increased import was, however, in the form of foodstuffs and of raw and half-finished materials, the latter intended for re-export. Large contingents from Alsace-Lorraine were also dumped into Germany before January 10th, the date when the five-year penalising under the Versailles Treaty came to an end. There are two minor disadvantages in connection with the export trade from which the German manufacturer suffers: adverse tariffs—and these show a decided tendency everywhere to increase—and the fact that whilst his currency is stabilised on the dollar, the French and Belgian exchanges show a tendency to fall. It is also maintained that French and Belgian wages are lower than the German, whilst at the same time the employers of labour are less hampered by internal economic conditions.

160 GERMANY'S INDUSTRIAL REVIVAL

Germans are naïvely declaring that their export trade is dependent on world peace, no adverse tariffs, and increased consumption throughout the world. One of their most able politicians and economists has given it as his considered opinion, however, that German manufacturers ought to concentrate effort upon the home market, cheapening the costs of production by attention to overhead charges, the increased use of electricity, and adoption of all modern methods, stimulating demand in proportion as the price of the article lowered. There is no doubt in any case that the attention of all industry is focussed upon means and ways of cheapening the costs of production, and here Germany is in the forefront of the industrial battle.

Industry in Germany to-day is on the whole busy, although all are complaining of shortage of cash, the difficulty of obtaining adequate credit from the banks, and the unreliability of payments from customers. To that extent export business will be hampered for some time.

The actual position of the German manufacturer himself is that in order to raise the necessary working capital he must either sell existing goods at a loss, or realise any foreign securities he may have, or borrow from the banks, or try to raise a loan privately, at home or abroad. His position is not easy.

CHAPTER VIII

POST-WAR ADMINISTRATION

DEPARTMENTAL LEGISLATION

INDUSTRIAL AND FOREIGN POLICY (*continued*)

Foreign Trade as Influenced by the Occupation. Franco-Germanic Policy.

THE shipping trade affords us the most complete and up-to-date example of German industrial foreign policy overseas. Turning to review its post-war tendencies in connection with the European situation we see that it has been of course in great measure determined by the occupation of her Rhineland frontiers. We need not overestimate the effect so far as the areas which were limited by the terms of the Treaty are concerned, but the results of the taking over of the Ruhr district are far-reaching.

One obvious result is that Germany's determination to exploit new markets has acquired the urgency of need; another that some rearrangement of economic relations between the German and French coal and steel magnates has become an intrinsic part of Franco-Germanic policy—with all that that imports to other competing countries—although for the moment negotiations are at a standstill.

162 GERMANY'S INDUSTRIAL REVIVAL

Finally, it must be borne in mind that a direct effect has been to weaken the hands of the German administration in the control of finance : relief has become necessary. The suggested reconsideration of the Peace Treaty has been followed by the Dawes scheme, with the Anglo-Germanic treaty and a British loan.

The provisions of these have been already discussed in another connection, but after what has been pointed out with regard to the post-war strengthened links between the German State and her industrialists, it is obvious that any relief derived by Germany will at once be followed by such an impetus being given to German commerce as will seriously affect her competitors.

The main attention of the writer during the period of travel and privileged observation through the areas occupied by the combined forces of the Allies, was directed to ascertaining first the nature of the relations existing between the troops and the German people personally, and, secondly, the economic results of this superimposition of a foreign military *régime* upon a civilian population.

The attitude towards the *personnel* of the Allied armies differed. It is natural that the writer was especially anxious to know the feeling towards the British troops in particular, and it was gratifying to discover, as the outcome of hundreds of questions,

that throughout the sphere of British military influence high testimonials were forthcoming from Germans of every class with respect to their conduct. The scheme for the British occupation had been at the outset conceived so as to give the fullest consideration possible to the civil population, and the administration appears to have aroused both respect and appreciation. The British Army has been occupying congested areas containing a most varied populace; tribute is due—and seemed to be readily forthcoming—to the temper of the relations between the military and civil authorities and people generally. The British administration and the behaviour of British troops are admitted to have been beyond praise.

The information received with regard to the Belgian troops in their part of the frontier was less favourable, the Belgian trooper having in himself a lower moral standard than the Anglo-Saxon. Unpleasant incidents appeared frequent. The Belgians were, however, personally more acceptable than the French.

It is necessary, however, to receive all complaints with regard to the presence of the French on German soil with respectful sympathy for both nations—and a certain reservation of judgment. Considered dispassionately, while it was apparent that both officers and men were unpopular, and

the whole French *régime* the subject of repeated criticism and bitter comment, it is a fact that the French officers have universally, and the *poilus* very frequently, endeavoured to make themselves pleasant to the people when in discharge of their duties. ' That no day apparently passed without trouble in some form or other, either arousing or showing up the antagonism of the Germans, was possibly as inevitable as it was unfortunate.

The chief underlying cause of resentment towards the French is on account of the systematic methods which they have been—so it was said—employing to try to bring the Rhine population under the influence of French thought, culture, and business methods; furthermore and worse—to be dependent upon French economic supremacy.

Persistent propaganda has at any rate been in operation with the object of impressing upon the Germans the friendship and consideration of the French towards them, and it is commonly asserted by leading Germans in the French military area that the French have been steadily imposing a system whose tendency is to convert the Rhineland into a French province. Dispassionate hearers inevitably recall the history in these respects of Alsace-Lorraine and Schleswig-Holstein since 1870. Meanwhile schools have been set up with French teachers; cheap attractive journals and other pub-

lications in the French and German languages are in circulation ; and every facility has been afforded to the French commercial traveller and business man to establish trade connections. Particular objection is taken by Germans to the fact that French officers and men have brought their families to the Rhine provinces and there established homes for them. This—it is said—is at the expense of and to the exclusion of German residents ; also that it has been done with the object of creating, steadily and surely, a strong French colony in Western Germany. There are grounds for this interpretation of French policy—but allowance must be made for the inevitably strained conditions between two adjoining countries under post-war conditions.

The fact remains that whereas at the beginning of the Occupation the British were the objects of German hatred and the French accepted sympathetically, the year 1922 found this attitude wholly reversed.

There is, however, one feature of the French occupation of Germany which cannot be approached without feelings of profound regret—that of the presence of her coloured troops. It cannot but be considered as the most deplorable blunder of post-war policy committed. No sympathy is possible for German militarism, and the

166 GERMANY'S INDUSTRIAL REVIVAL

close study of German intimate life to-day only accentuates one's abhorrence of the German military policy before and during the war. But the action of France in introducing black troops into a white community was a crime committed against the white races throughout the world. We are no longer at war fighting for existence—and in this matter Germany has been helpless.

The difficulties of all those administering communities where coloured and white races are equally subjects will be intensified, to a degree we cannot at present estimate, by this most unfortunate and ill-advised measure. And nothing can be conceived as more calculated to make any Anglo-Saxons thoroughly ashamed than the knowledge that it met with no protest from the Anglo-Saxon statesmen responsible for the Treaty under which it was effected.

It is impossible here to refer in detail to the repulsive arrangements which have been obtaining for the regulation of the daily life of these coloured troops with that of the German population, but it is to be hoped that for the sake of the prestige of the white man throughout the world no similar experiment will ever again be introduced in European military administration.

Economically the presence of these large bodies of men in the Rhineland has naturally meant a

large market for German products, and there has been a very considerable circulation of money of high purchasing power throughout the whole of the occupied regions. Although German politicians complain of the cost of the Occupation Army, they cannot deny that a very large portion of actual expenditure has found its way back into Germany and has been, in fact, operating as a direct incentive to many of her industries, and maintaining an appreciable volume of the internal commerce.

It is true that the presence of the armies accentuated the housing problem, but the advantages which have accrued from the economic as contrasted with the political standpoint are undoubtedly considerable. At the same time there has been a great development of French trade, and it is quite natural to assume that the French Government will facilitate the export of French produce and manufactures to the Rhine in every way feasible.

It is impossible to over-estimate the degree of bitterness felt throughout Germany at the French seizure of the Ruhr.

Mr. Bonar Law, among European statesmen, presented the following solution for the redressing of the situation which led France to her action—and in view of the present state of affairs under the Dawes scheme it is worth recalling. He proposed :

168 GERMANY'S INDUSTRIAL REVIVAL

(a) 'A fixed amount of reparations based upon Germany's capacity to pay. . . .

(b) Breathing space, to extend over four years, during which Germany was to face the task of rearranging the industrial and financial machinery of responsible administration.

(c) The re-establishment of a Commission of Control over German finance which would guarantee to the Allies that the process of government in Germany was directed definitely to the discharge, in accordance with the plan laid out, of German obligations.

It was thought that a definite plan accepted by Germany, the realisation of which would be under the joint control of France and ourselves, offered a more hopeful prospect than the advent of France into Germany, entailing the disorganisation of German industry. Also that the presence of a Commission of Financial Control in Germany would not merely be of advantage to the Allies, but to Germany herself, in preventing the obvious orgy of waste apparent in every department.

The bedrock reason for these suggestions was the conviction that the complete destruction of German economic life must react prejudicially upon the whole fabric of European international relations.

A quotation from correspondence with the

director of one of the most important American steel firms in Germany throws a certain light upon the results of the Occupation towards the spring of 1923, in so far as he was able to appraise them, and from his standpoint as a business man to compute the financial difficulties of the Reich at that period :—

“ . . . There is no question that the Reich is losing many billions through the lack of production and the necessity to keep the workmen supplied with wages, etc. I know of nearly 40–50 million dollars in steel material alone which is stored on the different works in the Ruhr district without economical use whatsoever, and I would not be surprised that including the manufactured articles the whole sum amounts to \$150,000,000 and more; if you consider that the Government did not succeed in placing more than about \$100,000,000 of their domestic gold loan, you can imagine what the situation means financially and economically to Germany. . . . Between the amounts Germany was willing to offer before the occupation of the Ruhr and the amounts which we read in the papers to-day are considered acceptable by France, there is such a large difference that I do not see it could be bridged over before people have suffered more and forced their ambitious Governments to come to earth. . . .

“ . . . If you consider that in the steel trade alone . . . which is also our special trade, our company alone is importing nearly

170 GERMANY'S INDUSTRIAL REVIVAL

‘100,000 tons of steel at prices which are 40–50 per cent. higher than before the occupation of the Ruhr, you will easily understand that there will be no large excess of the export production or not even a balance against imports to keep the German financial position on a level, notwithstanding the artificial stabilisation of the mark. The Occupation means an economic loss to everyone here, and Germany is gliding downwards in reality very rapidly, and the longer it lasts the less will any debtors get out of her. The ability of work and production is the only asset of these people and if you lay 50–60 per cent. of this asset dead as now in the Ruhr you can imagine the definite results.’”

The opinion generally expressed in Germany at this time (1923) was that if the existing situation continued much longer the Government would fall, and one drawn from the Socialist-Communist ranks take its place. This, it was feared then, would bring about the breaking off of Bavaria and East Prussia into separate states, with the consequent dissolution of the Reich. It was universally declared that this was the real object France had in view.

All leaders feared a famine in the Ruhr and stated that the French were preventing the import of food. They were anxious to know if the British and American Red Cross would undertake to feed the people—Germany defraying expenses. Regret

was also expressed that if the Ruhr was to be taken over the British had not participated, as they would have mitigated what the inhabitants described as a reign of terror and injustice.

There was a firm conviction that even if the French did leave the Ruhr they would never abandon the Rhine or the Saar, as Germans contend that the French policy of penetration has been continuous since the time of Louis XIV. The Peace of Westphalia first brought the Germans to the Rhine—in so far as it meant the occupation of Alsace, which had belonged to the Hapsburgs—and they claim that the “Rheinbund” of 1658–68 was organised by France in her own interests. Also that the French inaugurated their Rhineland policy in 1670 by combining with the Swedes, Poles, Hungarians, and Turks in attacks on the German Empire. The Germans also suggest that France not only desired superiority over her German neighbour, but was seeking the hegemony of Europe, and that this policy resulted in the coalition of Germany and England against France. They maintain that this same policy was pursued by revolutionary France, and steadily furthered by the Emperor Napoleon, quoting here the French Socialist, Louis Blanc, who in 1843 declared, “The question of the Rhine is for France a question of national defence.”

172 GERMANY'S INDUSTRIAL REVIVAL

Whatever the ultimate aims of France, this matter of the suzerainty of the Rhineland has become of far greater importance to-day, owing to the immense industrial resources of the provinces on the left bank of the river, and the great value of the latter as a means of navigation which the French would like to control. The point of the situation seems to be that the Germans must seriously consider working agreements with the French "Maîtres des Forges," whose aim is necessarily to secure control of the iron and steel industry of Europe by arrangements with Germany. To the importance of this, both parties are fully alive.

Through the M.I.C.U.M. agreement the French and Belgian coal and steel magnates are in possession of most, if not all, of the trade and commercial secrets of the Ruhr industrialists; and they will doubtless strain every nerve to achieve the dominant position they have contemplated ever since the beginning of the war.

It is Germany who has really developed the wealth of Lorraine since 1871. Before that year there were thirty-eight blast furnaces in Lorraine with an annual output of 200,000 tons of pig iron. In 1918 there were sixty-eight blast furnaces with a capacity of 3,800,000 tons of pig iron.

After the Armistice, French firms took over these works.

The works at Aumetz, which were the property of the German "Phoenix works," were taken over by a company called the Société Métallurgique de Knutange, founded for that purpose by Le Creusot, jointly with Chatillon-Commentez, De Wendel, and Aciéries de Saint-Étienne, etc., with a capital of 75,000,000 francs.

The steel works of Thionville with the mines of Angevillers, which belonged to the brothers Roechling, were taken over by a new concern formed by the Aciéries de Longwy, Les Établissements Arbel, Hotchkiss, Paul Girod, Decauville, La Société Centrale de Banques de Province, and two Belgian concerns, with a capital of 50,000,000 francs. The mines and steel works of Uckange, the property of the brothers Stumm, were taken over by a company called Forges et Aciéries du Nord de la Lorraine, founded by Messrs. Bessonneau and Jules Bernard, with a capital of 80,000,000 francs. The works at Redange-Dilling were taken over by a new company formed, with a capital of 36,000,000 francs, of the following firms: La Marine-Homécourt, Les Aciéries de France, Les Aciéries de Micheville, Les Hauts Fourneaux de Pont-à-Mousson, and La Compagnie d'Alsace.

The blast furnaces and foundries of Rombas were taken over by La Société Lorraine des Aciéries de Rombas, with a capital of 150,000,000 francs, the managing directors being W. Émile Heurteau

174 GERMANY'S INDUSTRIAL REVIVAL

and M. Théodore Laurent, who is also president of the concern. Both these gentlemen are also intimately connected with La Marine-Homécourt.

The great works of Thyssen at Hagondange were taken over by Renault, Berliet, Japy, Peugeot, Aries, etc., with Lemoine, who also founded the Union des Consommateurs de Produits Métallurgiques. The capital here was 105,000,000 francs.

The blast furnaces owned by Gelsenkirchen at Audun-le-Tiche were taken over by La Société Minière des Terres Rouges, of which Mons. Léon Lévy is president.

In the Saar the French steel works took a participation of 60 per cent. in all the large industries. Messrs. Schneider, Paul Sabbé, Xavier Reille, André François-Pincet, Théodore Laurent, Mercier, Bessonneau, and Jules Bernard, all thus became members of the boards of the Arbed (Aciéries de Burbach-Eich-Dudelange), of Hadir (Hauts Fourneaux et Aciéries de Differdange-Saint-Ingbert-Rumelange), and of the Dilling-Neunkirchen and Hombourg works—so becoming automatically predominant partners with such great German industrialists as Herren Roechling, Konrad, von Schubert, Fritz and Fried. von Stumm, Richard von Kulmann, and Mannesmann.

Belgian directors were also put on to all the boards so as to satisfy the Belgian interests.

France in pre-war days produced 5,000,000 tons of pig iron, which were sufficient for her requirements..

Now the output, including Lorraine and the Saar, comes to eleven million tons, six million tons of which she has to market, and much of which she cannot produce satisfactorily unless she is certain of securing the required quantities of Ruhr coke. In addition to these facts the war has greatly increased France's own capacity for production and brought her methods more up-to-date. The purchasing power meantime of Europe, and indeed of the world generally, has considerably diminished, so that there are to-day something like a hundred too many modern blast furnaces in existence. Those countries and districts which can produce at the cheapest rate are therefore bound to secure the world's markets at the expense of the others. It was with this in mind that in the preliminary negotiations for peace it was proposed that the Ruhr should send to France one ton of coke in exchange for one and a quarter tons of "minette" (Lorraine iron ore). These proposals were not, however, carried through.

Unless France can secure the co-operation of the Ruhr coal producers so as to ensure the coke supplies she requires, and unless she can dispose of the pig iron thus produced, the valuable ore

176 GERMANY'S INDUSTRIAL REVIVAL

deposits she has gained in Lorraine will be of little use to her.

On the other hand, the Germans desire the cheap Lorraine ore, so as to keep down the large purchases of iron ore they now make in Spain, Sweden, Russia, Algeria, and elsewhere.

Before the war Saar-Lorraine and Ruhr heavy industries were all syndicated, the Saar and Lorraine supplying the ore, whilst the Ruhr supplied the coke: the Saar coal is not suitable for making coke. In other words, the steel industry of the Saar and of Lorraine is dependent for its success upon the ability to procure—at proper prices—the Ruhr coke.

The steel output of the Saar and of Lorraine was in pre-war days also in the hands of the German steel magnates of the Ruhr. That is to say, France has now to market these products—hitherto sold by Germans; can she do it without securing the co-operation of the Germans in the Ruhr and in Westphalia? If she succeeds, what will be the effect on our iron and steel trade?

The French and the Belgians are in possession through the M.I.C.U.M. of the fullest details of the Ruhr industry. This is a mighty argument in favour of an association of German industry with a competitor from whom there are no more secrets. On the other hand, the Germans are fully aware of

the vast mineral resources possessed by France in Morocco, Indo-China, and elsewhere; and realise the enormous benefits they would gain if they could participate in their development—so far France has done little in this direction. In pre-war days, Krupp's and Creusot have, with respect to armament agreements, worked to mutual satisfaction.

As regards the interests of Great Britain, in the above circumstances it is essential that she should lose no time in concluding proper agreements with Germany to protect them, and to prevent her own steel trade from being ruined. Some of the large German ironmasters see the advantages which might be gained by co-operation, as the following extract from a letter of one of the leading ones clearly shows:—

“The present economic situation in the iron and steel as well as the coal industry calls for co-operation. As it seems impossible for some time to come to return to international agreements between all the leading producers, co-operation should be started between two large firms or concerns in England and the Continent.

“If we take England and Germany, the producers in the latter country seem for the present to be in a better position as regards wages and scientific efficiency. On the other hand, they are seriously hampered by the lack of capital. Thus it would appear that what

178 GERMANY'S INDUSTRIAL REVIVAL

the Germans are missing the English can produce, and *vice versa*.

“In a position like this there should be little difficulty in coming to an understanding. The idea which presents itself is this. Two big concerns in England and Germany, working on similar lines, combine by undertaking to assist each other technically, scientifically and financially. They also agree to keep themselves mutually informed and to work together as regards the catering for and the execution of big orders. They endeavour to bring about on both sides better general conditions. Such a combination might be the first step for or be simultaneously accompanied by mutual participation, and mutual support as to general results.”

Great Britain has one weapon with which to secure her position, and that is the financial one, but past methods in negotiating loans, etc., will have to be considerably modified if this is to be used successfully.

Here is an example of the sort of transaction carried out by our finance houses :—

A loan of £300,000 at 7 per cent. for 5 years repayable any time previously at option of borrower. Collateral security furnished covering loan several times over, with options at a fixed low figure on shares of the union and its associate companies, the amount and value of which are larger than the cover required to secure the loan. The

Germans in such case are covered, in that shares thus taken up cannot be sold before the expiration of a fixed number of years, and the voting power of the shares goes to the borrowers and not to the purchasers. These transactions are possible also in Germany because the German banks own half blocks of shares of the big industrial concerns, and can thus grant options on them to the lenders.

British finance has scarcely ever exacted conditions securing to British industrialists a share in the orders and profit resulting from her loans. This must be changed, and conditions imposed so as to insure a share of all orders received coming back to this country, if our undertakings are to be successful. British and American finance houses have made great profits from loans to German industrialists with the call on German industrial shares, thus giving them a direct interest in the prosperity of German industry. Such operations are naturally welcomed by the German banks, whose interests are so closely tied up with the prosperity of German undertakings; but they are the reverse of useful to our own industry.

CHAPTER IX

TRANSPORT SYSTEM IN GERMANY, PRE-WAR AND POST-WAR

Railways—Canals—Waterways—Rivers. Electricity System. Traffics. Expenditure. Receipts. Brown Coal Development. Hydro-electric Power. Table showing Development of Main-line Electrification in Central Europe as compared with U.S.A.

Trade and Industry in respect of above, 1913–1925.

BEFORE the war the component parts of the German Empire owned and worked their own railways.

In March, 1920, the German Parliament passed a law by which the Reich took over all the railways. These were placed under the direction and supervision of the Minister of Transport, General Groener, who was before the war the head of the railway section of the German General Staff.

Canals, harbours, and waterways were also put under the direction of the Ministry of Transport, together with a certain amount of authority with regard to electricity undertakings. Unlike the railways, however, these last, the waterways, and the harbours were not centralised in the Government of the Reich, but in most cases privately or

municipally owned and operated, remaining to some extent under the control of the Governments of the individual German States. Some of the waterways and electricity undertakings belong in fact to individual German States, the German Reich itself owning the electricity works which supply current for traction and other purposes to the railways. There are many instances of German towns and states, as well as the Reich, holding debentures and shares in private undertakings on the boards of which they nominate a certain number of directors as their representatives. Before the war, it was generally recognised that the railways operated by the various German States were efficiently run, and paid well. The German State railways were one of the few examples of nationalised undertakings which gave satisfactory results. This was due to their being so very highly centralised, and to the fact that the administration could not be controlled by Parliament and was, to all intents and purposes, appointed by the Chancellor, run on very similar lines to those adopted in the case of the German Army.

During the war, owing to the shortage of supplies, more particularly of lubricants and copper, the German railways suffered greater deterioration than was the case in any other of the countries concerned. This was further increased by the

182 GERMANY'S INDUSTRIAL REVIVAL

constant transport of men and materials from the one front to the other right across Germany. Furthermore, at the Armistice, Germany had to give us a large number of locomotives with rolling stock. The war at an end, the Germans, with their usual thoroughness, set themselves to put their railways in order, both as regards permanent way, works, and rolling stock. They immediately proceeded to replace the copper fire-boxes which they had taken out of their locomotives, to repair old, and to build new engines and rolling stock—more particularly waggons.

From Table I (page 202) it will be seen that in April 1922 Germany owned a larger number of locomotives than she did before the war, although the total number in actual working order was not quite up to the pre-war standard. When we come to passenger coaches, luggage postal vans, and goods waggons, we find them, both as regards numbers and condition, superior in 1923 to what they were in pre-war days.

Owing to war conditions, the train services immediately after the Armistice were poor; since then the arrangements have been considerably improved.

The operating conditions during 1924 of some of the best trains as compared with 1913 are shown in Table II (page 202).

In view of the depreciation of the mark, and noting the large sums of money which must have been spent by the German Government in re-conditioning and reorganising their railways, it is not surprising that the financial results of taking over the railways turned pre-war profits into a considerable deficit.

Table III (page 202) shows that the deficit was on the decrease, as regards 1920 and 1921, although greater than was originally anticipated owing to the fact that the increases in fares and rates for goods traffic had not kept pace with the increased costs of operation and maintenance. This was partly owing to the rapid depreciation of the mark, partly to the fact that the German Government drafted on demobilisation a large number of men into the State railways, and although many have since been dismissed there are still far more than were employed before the war.

Since the war until this year, 1924-25, when it has risen to 70 per cent., the output of the men performing the work has been only about 60 per cent. of the pre-war; conditions were not improved by the introduction of the 8-hour day.

Table IV (page 203) gives specific information on this point. The increase in the operating cost was also a result of the deterioration of the locomotives and rolling stock during the war, together

184 GERMANY'S INDUSTRIAL REVIVAL

with the post-war increase in the cost of labour and supplies, more especially of fuel and lubricants. The average fuel and oil consumption rapidly improved and was expected shortly to reach the pre-war standard, although its cost in 1921 was largely in excess of this (see Table V, page 204).

The increase in passenger fares, 1913-1919-1924, as will be seen from Table VI (page 205), did not keep pace with the depreciation of the mark. This table also shows that the rates were not, during those years, increased in fixed proportion for the poorer classes of travellers, and for those who travelled first and second class—nearly all of whom were non-Germans.

The working people were still further considered in the very slight rise in the price of season tickets, quite out of proportion to the increase in the wages received, or to the depreciation of the currency. Furthermore, in order to help the working classes, fourth-class season tickets have been introduced since the war. Freight rates have on the whole been raised more rapidly than passenger rates. The increase of these rates began during the war, so that after the Armistice they had already nearly doubled as compared with pre-war. The average increase in the various rates for goods, reckoning with 1913 and 1917 to 1922, may be seen from Table VII (page 205).

With these figures and circumstantial details in mind it is not therefore at all surprising that one of the first items to be seriously reckoned with when the Budget came to be revised and balanced at stabilisation was the railway system. This undertaking was in consequence separated from the Budget and reorganised as a financially independent administrative body. It remains to be seen, of course, how far this measure will benefit receipts and expenditure, meantime it is computed that railway traffic, as considered up to the June of 1925, is about 70 per cent. of the pre-war. The total cost of operating in 1924 came to about 5 billion marks; coal traffic is responsible for some 30 per cent. of the gross receipts of the railways generally speaking—and coal traffic at present is abnormally bad.

It is stated that 9,000,000 tons of coal are still lying idle in the Ruhr with no one to purchase them. The cost of pensions in connection with the railways amounts now to 10 per cent. of the cost of working. The rates of wages and salaries are fixed by the Minister of Labour and are relatively high, the index of the cost of living being 135, and present pay 152 as compared with pre-war. No railway official can be discharged except for bad conduct.

As a result of the cession by Germany of certain

186 GERMANY'S INDUSTRIAL REVIVAL

portions of territory, the mileage of railways owned and operated has been reduced. The reduction in locomotives and train kilometres is, however, greater than is warranted by the reduction in mileage, which shows that pre-war traffics have not yet been re-established. The interesting feature in this connection is that the total ton kilometres of freight carried is very nearly equal to pre-war. Figures regarding these points for the years 1913-1923 are given in Table VIII (page 206).

This large amount of goods tonnage does not arise entirely from useful or remunerative traffics, but is due to various causes, some of which must react detrimentally on the German railways. The principal of these may be summarised as follows :—

1. The large amount of reparation coal, timber, etc., which has to be transported. The depreciation of the currency resulted in an entirely new traffic springing up which may be called “valuta” traffic. Thus, owing to the depreciation of the German and Austrian currencies, it paid shippers to dispatch goods to their ultimate destinations in the various parts of Europe, or to their ports of shipment, over much longer distances through Germany and Austria, rather than send them by shorter routes through countries such as Holland, Belgium, France, or Switzerland.

This traffic was encouraged by the fact that no

differential rates were allowed to be charged. In this way, potatoes from Holland for France have come through Germany rather than through Belgium. Czecho-Slovakia and other Southern States, whose merchandise, such as timber and sugar, used to go to Trieste as their nearest port, now send it to Hamburg and get their return merchandise through this port instead of Trieste. Italy, which in pre-war days used to get most of her coal imported by sea, now gets it from the Ruhr by rail through Germany and Austria, so that in some cases the cost of transportation to Germany or Austria may be greater than the actual value of the coal.

2. It is difficult to utilise rolling stock efficiently when entirely new and uncertain traffics never dealt with previously have to be handled.

3. Owing to the export of reparation coal from the Ruhr, the German State railways have had to purchase large quantities of British coal with which to work their railways, thus not only increasing their operating costs but making greater demands upon their rolling stock.

As a result we had the curious sight of lines of barges going down the Rhine full of coke or coal for reparations, much of which found its way into the hands of traders and was re-sold to Germany, with similar lines going up the Rhine full of British coal for Germany.

188 GERMANY'S INDUSTRIAL REVIVAL

The handing over of the Saar coal to France has resulted in coal which used to be taken from that district to Southern Germany now having to be brought from the north of Germany.

The handing over to Poland of certain portions of Silesia containing 90 per cent. of its coal deposits, has resulted in the rest of Silesia having to a large extent to get coal for its metal industry from the Ruhr.

The rapid fluctuation of prices and the uncertainty of the value of the mark resulted in large works no longer holding great stocks of fuel and raw material, but purchasing spasmodically from hand to mouth as required. This militated against supplies being carried at the most suitable times from the point of view of water and railway transportation. It may happen that demands coincide with periods when canals are frozen, or there is a shortage of water, the big barges being in consequence unable to move. Stocks which would otherwise have come by water have in such cases to be carried by rail, and so extra burdens are thrown upon the railways. Again, the demand for transportation of raw material and fuel may coincide with the potato harvest, when all the available waggons are required for transporting the crop; or it may coincide with the sugar-beet harvest. Pre-war German industry always arranged to pur-

chase its raw materials and fuel so as not to overlap the demands of agriculture.

It will be seen from what has been said that the 1920-24 conditions were not conducive either to efficiency or economy—and benefited no one.

The road motor traffic has very greatly increased during the last few years in Germany and has assumed great importance.

Germany is divided into sixteen areas, each one of which is served by a road motor-transport company dealing with both passenger and goods traffic. In order to protect their individual and mutual interests, as well as for the sake of co-operating with the railways, these sixteen companies have formed a central company which includes them all and which negotiates and settles agreements on their behalf, also fixing tariffs and all working arrangements.

The headquarters of this centre company are in Dresden. Negotiations are now proceeding whereby goods can be shipped directly from producer to consumer by combined road and rail. Motor transport will collect and deliver for all shorter distances, as well as bring all goods to specified central railway depots. Here they will be loaded on to large waggons of from 20 to 30 tons capacity for long hauls. Arrived at the fixed central depot for distribution, the goods will then be transhipped into motor transports for distribution purposes.

190 GERMANY'S INDUSTRIAL REVIVAL

Goods are then to be distributed again into heavy capacity lorries of 5 tons or so for longer distances, and conveyed to the local distributing centres, where they will be carried to their destination by light lorries. Through rates will be charged by arrangement by the railway company. By this means the railways will secure fully loaded large capacity waggons and long hauls, an ideal condition for cheap railway transport. Instead of competition between road and railway transport, there will be co-operation.

The increase in cost of labour and materials, and the reduction of the coal available for use in Germany, have resulted in a big increase in the exploitation of the brown coal fields, the largest of which are situated near Cologne, in Saxony, in the neighbourhood of Leipzig and of Dresden, and in parts of Thuringia.

The rapid development of these brown coal fields is shown in Table IX (page 206), but in considering this table it must be remembered that Alsace also possesses a number of brown coal fields, the output of which has not been available for Germany since 1919, so that the increase in German output is really larger than would at first appear.

This brown coal is extensively utilised in producing electricity on the spot, and some very large electric generating stations have been erected for this purpose during and since the war.

Three of these works are situated close to Cologne, three are in the neighbourhood of Leipzig, and one is near Dresden. Several others are in the course of erection. In addition, the brown coal is briquetted and largely used for home consumption in various parts of Germany.

Generally speaking, Germany is doing everything she possibly can to develop her latent resources and to improve her transportation. The total estimated amount of these resources as regards black coal, brown coal, peat and water power are given in Table X (page 206).

Water-power resources are considerable, and estimated by Prof. Oscar von Müller of the University of Munich as 2,400,000 h.p. for Bavaria, and 2,600,000 h.p. for the remainder of Germany, an estimate which is somewhat lower than that of Prof. Klingenberg. Of these 300,000 h.p. are already in operation in Bavaria, and 300,000 h.p. more will shortly be put in service. It is calculated that the total output of these water powers would be able to take the place of an equivalent of 32,000,000 tons of black coal per annum.

As regards new construction, very little has apparently been taken in hand since, and none that was apparently not already authorised before the war.

The cutting off of sections of the railways, owing to the alterations of the German frontiers, has in

192 GERMANY'S INDUSTRIAL REVIVAL

many cases separated adjacent portions of the railway system and taken away goods yards, sidings and stations required for making up trains. These will have to be replaced. It has also made necessary the building of branch lines to connect parts of the railway system which have been severed from each other by the new frontiers.

The shifting of the sources which supplied the German demand for fuel, due to the reduction of the black coal fields which are available for her requirements, and resulting from the development of her brown coal deposits, has created abnormally heavy traffic over lines not equipped for this purpose; these will have to be extended in order to deal with the new demands imposed upon them.

Long previous to the war, Prussia, Baden, Württemberg, Saxony, and Bavaria had taken great interest in railway electrification, and had already begun to introduce it on a considerable scale, not so much in connection with suburban, but with their main line traffic. It was considered to be more economical to introduce electrification and thereby increase the carrying capacity of the railways, than to add to the number of tracks. In mountainous districts electrification not only greatly increased the capacity of the line, but also enabled a considerable saving in operating expenses to be effected.

TRANSPORT SYSTEM IN GERMANY 193

The results so far achieved are stated to be satisfactory and the extent of electrification carried out in Germany up to 1922 is shown by figures given in Table XI (page 207).

It is interesting to note that so far as the electrification of the Prussian State railways is concerned, power is supplied from stations owned by the State railways and erected on the brown coal fields ; while as regards the Silesian (Prussian) railways, it is supplied from State-owned stations situated on the black coal fields. In Baden and Bavaria power is supplied from hydro-electric stations : in Saxony from the brown coal fields.

The question so often discussed as to system is one which engaged the attention of the German, Austrian and Swiss railway authorities before the war and was again investigated by them after the conclusion of peace, with the result that Austria and Germany mutually agreed to standardise their main line electrification, utilising 15,000 alternating single-phase current, and thereby rendering their equipment interchangeable. The system is the same as that adopted by the Swiss Federal Railways, who are electrifying all their railways.

Another subject to which Germany has always devoted great attention is the development of her water transport. The natural waterways of Germany run mainly north and south, regulated

194 GERMANY'S INDUSTRIAL REVIVAL

and interconnected by a series of important canals. Sections of the Prussian, Bavarian, and Baden railways are being electrified: high tension transmission lines crossing Germany from north to south and from east to west will connect the hydro-electric power stations in southern Germany with the steam stations using brown coal in Saxony and in the Rhineland. The electric supply and transmission system which has been so extensively developed since the war and the introduction of electric traction on many of the German main lines have made Germany from this point of view one of the most advanced countries in the world to-day.

It will be noted that water transport so far as Germany is concerned is based on the five great river systems of the Rhine, Weser, Elbe, Oder, and Vistula, which last for all intents and purposes can be said to run north and south. In Austria it is based on the Danube, which for this survey can practically be called the highway running from west to east. Outside the development of these waterways near the main ports—which have been improved so as to enable ocean-going ships of over 3,000 tons to be dealt with—the water transport can be divided into systems accommodating barges of 200, 400, and 600 tons capacity, up to 1200 tons capacity. There are intermediate waterways, but for our purpose this subdivision is sufficient.

Twelve-hundred-ton barges to-day can go up the Rhine as far as Strassburg; up the Elbe nearly as far as Dresden; while 600-ton barges can go up the Rhine as far as Basle, up the Maine to Aschaffenburg, up the Weser as far as Cassel, up the Elbe to Dresden and to Prague, up the Oder from Stettin to Breslau and Oppeln, and up the Vistula from Danzig to Bromberg.

In addition to these natural main waterways which have been carefully developed, canals have been built and small existing waterways improved and enlarged by means of canalisation and locks, enabling 600-ton barges to go from the Rhine through the Ruhr east to Hanover. The prolongation of this particular canal system is projected and partly under construction; it will enable barges to travel as far as Magdeburg and get to the Elbe, thus going from the East to the West, from the Rhine to Berlin and Upper Silesia, to Danzig and into Poland. The existing system of canals accommodating 400-ton barges also connects the Rhine with Strassburg and Basle with the French waterways leading to the Rhone and the Seine, while the Rhine at the point where it enters Holland is also connected by rivers and canals through Holland and Belgium, with the North of France.

It will thus be seen that a complete set of inland waterways exists connecting Germany on the west with France, on the south with Czecho-Slovakia,

196 GERMANY'S INDUSTRIAL REVIVAL

and with Poland and Russia on the east. The only connection missing is one which would enable large river craft to go from the Rhine into the Danube.

The importance of such a connection has long been felt, and the present conditions have made it even more important in order to bring about the development and interlinking of Germany with Austria and the East. For this purpose the question of canalisation of the Maine, and the construction of a canal accommodating 1200-ton barges to connect this river with the Danube, was already in consideration before the war. On the conclusion of the war a syndicate was formed composed of various States of the empire, the big towns particularly interested in the scheme, and the large banks and manufacturing firms.

A most thorough investigation of the whole question was made by a committee of engineers appointed by the syndicate, who prepared surveys and estimates for three possible alternative routes, one of which was finally adopted. A concession for the execution and operation of the scheme was granted to a private company by the Reich and by Bavaria. The carrying out of this project will enable fleets of five 1200-ton barges to go up the Rhine and the Maine, and thence through the proposed canal into the Danube and so to the Black Sea. The Germans have termed this enterprise the new Suez Canal.

TRANSPORT SYSTEM IN GERMANY 197

The importance of this link to the trade of Germany can hardly be exaggerated, as by its means trains of five 1200-ton barges will be able to go from the industrial areas of Germany to the East with German coal and German manufactures, and bring back raw material such as oil, iron ore, food-stuffs and Russian and Oriental products.*

This canal would also benefit Belgium and Northern France.

The interesting part about it is the fact that investigation has shown that the construction of this canal and of the necessary reservoirs for feeding the locks will enable hydro-electric energy to be developed and supplied, amounting to over 500,000 h.p.

It has also been demonstrated that the electricity generated can easily be disposed of, and that under normal conditions the profit from the sale of electricity will suffice to pay the interest on the whole of the capital required for constructing the canal, as well as on that required for the construction of electrical supply stations and transmission lines.

A limited company with a capital of 900,000,000 marks was formed on December 30th, 1921.

Of the total capital 600,000,000 marks have been taken up by the German States, and the remainder by large towns along the Rhine, the Maine, and the proposed route of this canal; 360,000,000 marks being subscribed by the Reich, 212,000,000 marks

198 GERMANY'S INDUSTRIAL REVIVAL

by Bavaria, 3,000,000 marks by Thuringia and 3,000,000 marks by Hessen. No interest is guaranteed on this portion of the capital, and any interest accruing from it would only be paid after the remaining 300,000,000 marks have paid a dividend of 7 per cent. The Reich and Bavarian Governments guarantee a minimum of 5 per cent. on this 300,000,000 marks, the majority of which has been taken up by the German banks as follows :—

The Deutsche Bank	102,140,000 marks
Bavarian State Bank	51,070,000 „
„ Vereine Bank	51,070,000 „
„ Mortgage Bank	51,070,000 „

The remainder of this 300,000,000 has been taken up by local authorities.

This Board delegates its power to three sub-committees :—

1. To settle commercial and economic questions.
2. To settle questions of construction and building.
3. To settle questions of the supply of electricity.

Each of these committees consists of not more than nine members.

According to the provisions of the concession granted to the company by the respective Governments of the Reich and Bavaria, the Rhine Maine Danube Company has the sole and exclusive right to construct and operate the canal. This company has also the sole and exclusive right to build and operate

the different electric power stations, connected with and resulting from the construction of the canal. Furthermore, it has the right to expropriate on both shores of the canal within a zone of one kilometre, right and left of the waterway; all this land it may utilise for its establishments and settlements. Finally it possesses the first claim to all the shipping monopolies on the canal which may be granted.

This waterway will enable coal and iron products to go from the Ruhr into Bavaria, Austria, Hungary, Servia, Roumania, Bulgaria, Turkey, and the Black Sea ports, while it will enable transport of foodstuffs, iron ore, oil, and other raw materials and products of Russia and the East, from the East to the centre of Germany, and to the North Sea ports for shipment to South America.

It will enormously increase the importance of Vienna, which has always been, and promises to remain, the meeting place between East and West, and which, notwithstanding the dismemberment of Austria, still maintains its position; it will also increase the value of the Port of Cologne as a port of distribution, as well as greatly benefiting Antwerp, Bremen and Hamburg.

It will thus be seen that "Der Drang nach Osten" is still an important part of Germany's policy. The rich iron ore deposits of Jugo-Slavia

200 GERMANY'S INDUSTRIAL REVIVAL

are well known to the Germans and are already largely controlled and being developed by them at the present moment.

During, and specially since, the war Germany has been bending every effort towards increasing and improving her facilities for output and for transportation and distribution. As already shown, German manufacturers and mine owners, not having any excess profit duty to pay, have spent vast sums on their properties, and the deterioration of the currency, while it reached undue proportions, resulted in further great investments in bricks, mortar, plant and machinery. The importance of this line of development cannot be over-rated.

The development of the brown coal industry as applied to power production has been phenomenal, as will be seen from Tables X and XII (pp. 206-7), which also give the dates regarding the present supply of electricity in the Reich in 1921.

Germany shows a 50 per cent. greater production of electricity than Great Britain, but the more important point is that the average load factor is better in Germany, showing that the use for industrial purposes is more developed there than in this country.

Table XII (p. 207) gives data of some of the largest German supply undertakings.

TRANSPORT SYSTEM IN GERMANY 201

The network of transmission lines which traverse the whole country is very extensive, far more so than with us, and is constantly being extended. Not only is electricity being largely used in industries from the smallest to the largest, including the entire operation of coal mines and rolling mills, but the farmer has not been slow to appreciate the benefits to be derived from its use. There are few villages or farms to-day in Germany where electricity is not in general use for threshing and other agricultural purposes, as well as for lighting.

The largest of the generating stations are privately owned, although in some cases the States together with the local authorities are financially interested as share or debenture holders.

Most of the large modern stations and all those now building, whether steam- or water-driven, are interconnected with 110,000-volt overhead transmission line, which will shortly cover the whole country and interconnect the brown coal fields of Cologne with the black coal fields of the Ruhr and Westphalia; with Hanover, Hamburg, and Berlin on the one hand and with the hydro-electric plants of the Upper Rhine and Bavaria on the other. While meantime the brown coal fields of Saxony will link up at Berlin and interconnect with the black coal fields of Silesia on the one hand and the

202 GERMANY'S INDUSTRIAL REVIVAL

hydro-electric plants of Bavaria and the Upper Rhine on the other.

TABLE I.
GERMAN STATE RAILWAYS.

	<i>April, 1914.</i>	<i>April, 1922.</i>	<i>April, 1923.</i>
Locomotives owned	28,362	31,466	32,000
Locomotives in working order . .	22,945	19,509	—
Passenger coaches owned	62,749	65,242	—
Passenger coaches in working order	54,592	53,499	60,000
Luggage and postal vans owned .	17,157	19,787	—
Luggage and postal vans in working order	14,927	16,225	18,000
Goods waggons owned	639,381	685,606	—
Goods waggons in working order	614,071	615,606	650,000

TABLE II.
GERMAN STATE RAILWAYS.

		<i>1913.</i>	<i>1922.</i>	<i>1924.</i>
		<i>Average speed Km. per hour.</i>	<i>Average speed Km. per hour.</i>	
<i>Dist. in Km.</i>	<i>Time.</i>		<i>Time.</i>	<i>Time.</i>
Berlin-Königsberg	590 7 h. 44 m.	76	10 h. 45 m.	55 —
Berlin-Breslau .	330 4 h. 15 m.	78	5 h. 45 m.	57 —
Berlin-Frankfurt	540 7 h. 8 m.	76	9 h. 50 m.	55 9.30
Berlin-Cologne	578 8 h. 12 m.	71	9 h. 49 m.	59 —
Berlin-Hamburg	287 3 h. 14 m.	89	4 h. 28 m.	64 4.00
Berlin-Vienna .	711 11 h. 50 m.	60	18 h. 45 m.	38 15.0

TABLE III.
GERMAN STATE RAILWAYS.

<i>Operating Losses.</i>			
Loss in 1920	14.4	milliards of paper marks	
Loss in 1921 (*)	11	„ „ „	

* This loss had been estimated at 5 milliard marks, and was increased, owing to the devaluation of the mark being more rapid than the increase in the rates charged.

TRANSPORT SYSTEM IN GERMANY 203

TABLE IV.

GERMAN STATE RAILWAYS.

	1913.		1921.	
Number of employees	281,178		445,124	
„ „ workmen	459,324		551,785	
Total number employed	740,502		996,909	
	<i>Mks.</i>	<i>Paper Mks.</i>		<i>Gold Mks.</i>
Average annual salary of employee . . .	2,352	25,167	—	2,200
Average annual wage of workman . . .	1,331	18,742	—	1,200

PRE-WAR AND 1924 RATES PER TON IN GOLD MARKS ON GERMAN RAILWAYS.

<i>Distance.</i>	100 km.		300 km.		600 km.	
	<i>June 1914.</i>	<i>Spring 1924.</i>	<i>June 1914.</i>	<i>Spring 1924.</i>	<i>June 1914.</i>	<i>Spring 1924.</i>
Building materials . . .	3.40	5.60	7.80	12.70	14.40	20.40
Cereals . . .	5.40	10.80	14.70	25.60	28.20	41.30
Foodstuffs . . .	7.20	13.00	19.20	31.20	37.20	50.80
Coal . . .	2.90	4.50	7.30	11.10	11.90	14.50
Leather . . .	7.20	15.10	19.20	37.00	37.20	60.30
Paper . . .	7.20	9.40	19.20	22.30	37.20	36.10
Machine tools . . .	5.40	15.10	14.70	37.00	28.20	60.30

Freight index: (1914—100) June, 1924—148.7.

Commercial index: (1914—100) June, 1924—131.1.

AVERAGE GRADE OF OFFICIALS AND WORKMEN ON THE RAILWAY.

Pay per annum in Gold Marks.

	<i>May, 1924.</i>	<i>June, 1924.</i>
Guard	822—1,002	906—1,284
Stoker	942—1,260	1,104—1,476
Conductor	1,104—1,470	1,296—1,728
Secretary	1,302—1,734	1,596—2,280
Inspector	1,830—2,430	2,400—3,600
Regierungsrat	2,550—2,930	3,600—6,300
Ministerialrat	4,200—5,610	6,300—9,600
Reichsbahnpräsident	—	12,000
Minister	—	27,000

204 GERMANY'S INDUSTRIAL REVIVAL

To the rates of pay given in the Table must be added allowance for rent and for social conditions. Thus from June, 1924, every child receives 20 gold marks per month and every wife 10 gold marks per month. Including a rise in wages and salaries from June, 1924, these average 80 per cent. of those paid pre-war having regard to the increase in cost of living. The cost of living index,

May, 1924—115

June, 1924—112

September, 1924—116

It is useless giving figures for 1922 and 1923 in consequence of the depreciation in currency. The fact remains that during this period the actual gold value both of the wages and cost of living were considerably lower than before the war.

TABLE V.

GERMAN STATE RAILWAYS.

Fuel and oil consumption per 1,000 locomotive kilometres.

	1913.	1921.
Coal	14.4 tons	19.38 tons
Oil	21.3 kgs.	24.68 kgs.
Coal per ton cost	12.68 mks.	540 mks.

TRANSPORT SYSTEM IN GERMANY 205

TABLE VI.

GERMAN STATE RAILWAYS.

Passenger Tariff per Km. in Pfennige.

Paper Marks.

	4th Cl. Pfg.	3rd Cl. Pfg.	2nd Cl. Pfg.	1st Cl. Pfg.	Index Fig.
1913	2	3	4.5	7	100
April, 1919 . . .	3	4.81	7.98	18	—
March, 1920 . . .	9	14.43	23.94	54	856
June, 1921 . . .	13	19.5	32.5	58.5	880
December, 1921 .	16.9	25.35	42.25	76.05	1,397
February, 1922 .	29.58	44.37	73.94	133.09	—
	G.M.	G.M.	G.M.	G.M.	
June, 1924 . . .	3.00	4.5	6.6	9.6	116

Increase in % over 1913.

April, 1919 . . .	50%	60%	77%	171%
March, 1920 . . .	350	381	432	671
June, 1921 . . .	550	550	622	735
December, 1921 .	745	745	839	985
February, 1922 .	1,379	1,379	1,543	1,801

Season Tickets. Per one month—Cost in Marks.

Paper Marks.

	3rd Cl. 1913.	1921.	4th Cl. 1913.	1921.
	Dec.		Dec.	
Distance 6 km. . .	4.10 mks.	25 mks.	non-	17 mks
„ 20 km.	12.40 „	82 „	existent	55 „
„ 30 km.	16.40 „	123 „		82 „

TABLE VII.

GERMAN STATE RAILWAYS.

Increase in Freight Rates over 1913.

	%.	Index Fig.
October, 1917	7	—
April, 1918	23	—
April, 1919	97	—
October, 1919	195	856
March, 1920	491	—
December, 1920	850	—
April, 1921	1,022	880
November, 1921	1,359	1,397
December, 1921	2,089	—

206 GERMANY'S INDUSTRIAL REVIVAL

TABLE VIII.

GERMAN STATE RAILWAYS.

	1913.	1921.	1923.
Length operated	56,529 km.	52,973 km.	56,000 km.
Locomotive km.	1,169,901,351	893,135,186	—
Car mile km.	31,180,185,181	24,687,660,817	32,500,000,000
Ton km., of freight	57,900,407,024	55,939,628,163	—

TABLE IX.

DEVELOPMENT OF GERMAN BROWN COAL FIELDS AND BLACK COAL.

Output in Million of Tons.

Year.	Black Coal.	Brown Coal.
1885	58.3	15.4
1895	79.2	24.8
1905	121.3	52.5
1913	190.0	87.0
1916	159.0	94.0
1918	160.5	100.6
1919	116.5	93.8
1920	131.3	111.6
1921	—	119.6
1922	141.0	137.0

In 1920 out of the total amount of brown coal burned, 28,000,000 tons were used in the form of briquettes (it takes about 2.7 tons of brown coal to produce 1 ton of briquettes).

TABLE X.

TOTAL POWER RESOURCES OF GERMANY.

(According to Professor Klingenberg.)

Estimated in 1921.

Total Black coal	305	milliards of tons
„ Brown coal	13.4	„ „
„ Peat	850	„ „
Water-power	7,600,000	kilowatts

TRANSPORT SYSTEM IN GERMANY 207

TABLE XI.

ELECTRIFICATION OF RAILWAYS IN GERMANY.

All 15,000-volt Single when Alternating Current.

In 1922.

<i>Country.</i>	<i>Equipped.</i>	<i>Miles of Route.</i>		<i>Electric Line.</i>		
		<i>under Con- struc- tion.</i>	<i>To be Equip- ped.</i>	<i>Run- ning.</i>	<i>under Con- struc- tion.</i>	<i>On Order.</i>
Grand Duchy of						
Baden . . .	35	—	—	15	—	—
Bavaria . . .	62	400	100	17	115	60
Leipzig, Magdeburg, Halle (Prussia). . .	50	65	—	45	20	
Silesia . . .	115	55	100	35	45	
Totals . . .	262	520	200	112	180	60

Total mileage under operation being equipped and on order, 982.

Total electrical lines running or under construction or on order, 350.

TABLE XII.

GERMAN ELECTRICITY SUPPLY IN 1921.

	<i>Number of Stations.</i>	<i>Plant in Thousands of Kilowatts.</i>	<i>Kilowatt Hours Produced in Millions.</i>
Brown coal operated stations	72	950	2,200
Black coal operated stations .	112	1,300	4,000
Black and brown coal operated stations	30	—	—
Hydro-electric plants	40	200	450
Gas operated	23	—	—
Oil operated	18	—	—
Hydro-electric and steam, steam and gas, steam and oil, hydro-electric and oil, gas and oil, etc.	135	—	—
Total	430	2,450	6,650
<i>For comparison : Figures for Great Britain in 1921.</i>			
Total	551	2,800	5,200

208 GERMANY'S INDUSTRIAL REVIVAL

TABLE XIII.

SOME OF THE LARGE GERMAN ELECTRIC POWER PLANTS.

		<i>Kilowatts installed and in Order.</i>	<i>Output in Kilowatt- Hours, 1921.</i>
Zschörnevitx (Saxony)	Brown coal . . .	300,000	754,000,000
Trattendorf, Rheinisch			
Westfälische . . .	„ . . .	475,000	749,000,000
Elektrizitäts Werke			
Oberschlesischer .	Black coal . . .	85,000	405,000,000
Industriebezirk (Lau-			
fenburg)	Water	50,000	309,000,000
Berlin	Black coal . . .	200,000	203,000,000
Hamborn-Bruckhausen	Blast furnace and		
Nyssen Zentralen.	oven gas . . .	30,000	204,000,000
Lautawerke (Saxony) .	Brown coal . . .	50,000	151,000,000
Cologne Kraftwerk			
Fortuna	„ . . .	72,000	156,000,000
Bochum (Westphalia)	Black coal . . .	65,000	113,000,000
Hagen (Westphalia) .	„ . . .	50,000	116,000,000
Hirschfelde (Saxony) .	Brown coal . . .	60,000	78,000,000
Weisweiler Kraftwerk			
Zukunft	„ . . .	32,000	68,000,000
Lauchhammer	„ . . .	25,000	74,000,000
Walchen See (Bavaria).	Water . . .	110,000	Just com- pleting.

CHAPTER X

SOCIAL CONDITIONS IN GERMANY, 1920-3-4-5

Insurance — Pensions — Medical Benefits — Friendly Societies
Employment of Women and Children. University Students
—Students in Technical High Schools.

TRAVELLING about the country it was borne in upon the writer at intervals during the years from 1920 to 1923, that the impression received by the casual visitor to Germany must obviously be that there was everywhere evidence of great industrial activity, no unemployment, and abounding prosperity. Such an impression, unless subjected to searching analysis, would mean and lead to an erroneous and entirely misleading conception of what the actual situation then was, but on the other hand it is easy to understand the justification for the accounts—and criticisms—of Germany's flourishing condition which have been so widely circulated during the past few years in Great Britain and the United States.

Much of the old arrogant spirit of the Prussian was still observable, and there were scores of people who found it difficult to realise that Germany had been beaten in the war. In spite of

210 GERMANY'S INDUSTRIAL REVIVAL

the almost universal cry for permanent peace to which Germans give expression, masses of them have remained devotedly attached to the former régime, and would gladly seize any available opportunity for an attempt to restore the shattered fortunes of their empire.

The bulk of German industrialists, and, with the exception of the Democrats and Liberals, the bulk of the German people, do not admit that Germany is responsible for the war. Yet a close examination of the history for the thirty years preceding the war, and a study of German political writers such as Baron Eckhardstein, Erzberger, and Helfferich, clearly demonstrate that with the *Machtpolitik* which she pursued, coupled with her own absolute lack of understanding of any other mentality but her own, war was inevitable. The German Constitution created by Bismarck could only be administered by a Bismarck. The rapidity with which the German Empire had been created, and the hot-house growth of industrialism, inevitably led either to world domination by Germany or to war—a war as unnecessary as it was costly in blood and treasure.

Having seen Germany as she is, and having endeavoured to go carefully to the bottom of every question presented so as to estimate the true economic and mental condition of her people, the

writer feels very strongly that the criticism so frequently levelled at the Government in England to the effect that British people—the apparent victors—are so much worse off now after the war than in pre-war days, has its real and most effective answer in another question: *What would the position of England be now if Germany had won?* Much as one may sympathise from the purely humane point of view with the terrible calamity which has befallen Germany as the result of her pre-war policy, there can be no doubt whatever that a German triumph would have destroyed the liberty and progress of every other community in Europe. Meantime, the fact clearly emerges that the daily post-war life of the German working population has been and continues to be surrounded by exceptional difficulties; also that the solid character of the German as a thrift-loving individual who gave his first thoughts to providing, within his limits, for the future of himself and his family, became modified almost to extinction during the past few years and until recently.

Housing conditions have been and are still very bad, but not worse than might be found in any congested community in England. Food of all kinds has always been apparently plentiful, but the purchasing power of a large proportion of the working class and of the whole of the middle

212 GERMANY'S INDUSTRIAL REVIVAL

class was so greatly reduced after the war that meat was often only bought at rare intervals. The working class, although the standard of wages—or an entirely fictitious basis—has been bearing no relation to the value of the work done, managed to keep itself in tolerable comfort, but the margin for expenditure other than on food and clothing fell considerably with the depreciation of the mark.

The *immediate* result of stabilisation was reduction in the cost of living, but this has now (1925) gone up again. In June, 1924, the index showed 112, by November it stood at 122·5, whilst the wholesale trade index had moved from 117 to 131. Salaries meantime are *de facto* lower than the pre-war, lower still in relation to the cost of living. This side of the economic question is actually being met by a general acceptance of an altogether lower standard of living, the nation since the September of 1923 having realised that therein lay the main road to the industrial recovery upon which it is now intent.

The clothing difficulty has been acute all along and in every city. Externally, people even in the poorest classes presented a fairly clean and decent appearance, but ample evidence was forthcoming of a real lack of underclothing. From inspection of the children in the elementary schools, and observation of the under-garments in the possession

of people in working-class homes, it was clear that the statements made with respect to this grave need, were not greatly exaggerated, and continue true.

It must be remembered that inflation depreciated to practical extinction the savings-banks deposits, the funds of the State and private benefit funds, and the old-age pensions.

The re-establishment with stabilisation of all these sources of help to the people marks the turn of the wheel—but actual results are small in themselves. Old-age pensions are not payable before sixty-five years of age, and only at the rate of fifteen shillings a month. The savings-bank funds are still too small to be of use as credit to the Government, although the fact that deposits are beginning to be made is a sign of moral recovery on the part of the people.

Insurance against accidents and sickness is provided for under the German system as well as the insurance of workpeople generally in favour of their dependants. Provision is also made for the welfare and health of the workers, of mothers, of the aged and the unemployed. The means to meet these demands are controlled by the so-called "Krankenkassen," to which both employer and employed contribute.

Some 17,000,000 workers are insured in this way.

214 GERMANY'S INDUSTRIAL REVIVAL

Insurance against accident is provided for jointly by the unions of the workers and the employers. About 26,000,000 workers are covered by this means. Insurance against old age and invalidism are provided for by insurance companies, and some 15,000,000 persons come under them. The clerical employees and salaried workers are insured against illness, old age, and—in the case of their death the loss to their families of the bread-winner—by the “Reichsversicherungsanstalt,” a “government insurance” to which employed and employer each contribute. Under this arrangement about 1,600,000 are insured. The depreciation of the mark in the past few years has greatly affected these institutions, whose investments have practically disappeared. But before the war the worker was supposed to contribute 4·5 per cent. to 6 per cent. of his wages; this figure has been raised since from 7·5 per cent. to 10 per cent.

The laws with regard to insurance are on the whole the same as before the war, with the exception of one or two minor alterations due partly to the change in economic conditions, partly to improved organisation.

The rules for the insurance of employees were re-drafted at the end of May, 1924. This was necessitated by the frequent changes consequent upon the inflation of the currency, but involved

no important readjustments in organisation. After the stabilisation of the mark the system of grading according to wages was revised, together with the rules as to contributions and benefits. The re-classification of occupations has also meant that the various classes of persons eligible for insurance have been so clearly defined that it is no longer possible for doubtful cases to creep in with anything like their former frequency.

Double insurance, *i.e.*, the obligation certain insured persons were under, owing to the nature of their employment, of contributing both to the employees' and to the disablement insurance has been abolished. Such persons are now insured definitely in one section; should they change their occupation they are transferred from the one insurance scheme to the other.

The contributions, which are calculated on the monthly rate of wages, are distributed out into five wage grades; the lowest grade is where wages are paid monthly and do not exceed 50 gold marks, the highest embraces workers having a monthly wage of over 300 gold marks. No insurance can be effected when the annual income earned exceeds the limit fixed by the Minister of Labour, which since December 1st, 1923, stands at 4,000 gold marks. Contributions are made as before by employers and employed—each paying half, the

216 GERMANY'S INDUSTRIAL REVIVAL

employer deducting half the amount of the contribution when paying out the wages.

The benefits of the insurance comprise retiring pensions, pensions to dependants, and medical benefits.

While on account of the re-drafting it is not easy to compare the benefits under the present with those obtaining under the old scheme, it is certainly possible to state as fact that the contributions in the lowest grades are the same to-day as before the war, whereas the highest-grade contributions, which in pre-war days came to 26.50 marks per month per person, now amount to 12 marks. This shows a diminution in payments of over 100 per cent.

According to the new regulations, a person qualified for a retiring pension, *i.e.*, an employee over the age of 65, or who is wholly incapacitated, receives a minimum benefit of 360 marks per annum. This amount may be augmented by what is practically a bonus of 10 per cent. on any payments made before December 1st, 1924. On payments made before that date no augmentation is allowed.

The pension for dependants, such as, for example, for a widow, amounts to six-tenths of the retiring pension due to the person insured. The pension for orphans, which also comes under

the head of pensions to dependants, is fixed at a rate of five-tenths of the retiring pension due to the insured person.

The object of the medical benefit is the removal of present and the prevention of threatened disablement. It consists generally in the admission of the sick person to a hospital—or a convalescent home; and is independent of the amount of the monthly contribution. No one is entitled to insist on receiving medical benefit.

With the exception of a few unimportant alterations the branch of insurance against disablement stands as in pre-war days. After the stabilisation of the mark, a fixed sum in "Rentenmarks" for contributions and benefits was arranged for, and the contributions were reduced in conformity with the rate of wages agreed upon. During the inflation period a wage-grade, including fifty classes, had been gradually worked out, in conformity with the higher rate of wages as expressed in paper marks. Now, with the Rentenmark, a system embracing only five grades was set up—as in pre-war days. Contrary to what has taken place with respect to the employees' insurance, the highest contributions here have increased in comparison with 1914—from 48 pf. to 100 pf. per week. Benefits are now as follows :—

218 GERMANY'S INDUSTRIAL REVIVAL

The minimum pension amounts to 168 marks per annum, to which is added 10 per cent. of the value of the contribution-stamps attached since December 1st, 1924. The benefits from disablement insurance have remained on the whole the same as in pre-war days.

The sick benefit funds suffered grievously from the results of inflation, as did the employees' and disablement insurances. They were only in a position to recover by the introduction of the Rentenmark. The limit of insurability is now 200 marks per month, whereas in 1914 it was 166-65.

As immediate result this insurance scheme now operates over a wider field. The contributions have risen about 2 per cent. in comparison with pre-war days, when they came to $5\frac{1}{2}$ per cent. of the minimum wage and now on an average amount to $7\frac{1}{2}$ per cent.

The benefits have not increased in quite the same proportion as the contributions. That is to say, the daily benefit in pre-war days with a contribution of $5\frac{1}{2}$ per cent. came to 3.66 marks. Now it amounts to an average to 3.60. Exact figures, however, cannot be given as the economic position, and in consequence the relation of benefit to contribution, varies according as to whether the insurance is operating in State, municipal,

or trade employment sick benefit funds. On the whole, the benefits under the trade sick benefit fund are the most advantageous to the insured.

The *Berufsgenossenschaften* are organisations of employers, carrying out the Reich's Insurance Laws, thus taking responsibility from individual employers. They include 78,000 individual undertakings, with 9·4 million insured persons; 4½ million agricultural undertakings with 14 million insured persons, and public services with 900,000 insured. These bodies are responsible for the administration of the Accident insurance laws.

A new institution has arisen since the war dealing with the question of unemployment benefit. Since the beginning of 1924, contributions to this fund have been borne half by the employers and half by the insurable workpeople, and differ as to amount according to the number of people to be benefited. Contributions at present amount to 1 per cent. to 2½ per cent. of the minimum wage. These contributions are passed through the existing Sick Benefit Funds to the Unemployment Care Committee (*Erwerbslosenversorger*).

Germany has always led the van in care for women and child workers.

In industries such as lead paint works, sugar refineries, glass, brick and chemical works, special

220 GERMANY'S INDUSTRIAL REVIVAL

regulations with regard to women's labour are in force. Where an industry comes under the "not less than ten employees" regulation, women may not work for four weeks before the birth of a child, nor be re-admitted under six. In motor works, four weeks is the after-birth period of exemption. Nowhere may they work up to within a fortnight. In no case is work allowed to be taken home.

With the exception of horticultural work, and women employed in hotels and restaurants, all employers have to notify the police as to the number of their women workers and the conditions under which they work.

The 8-hour day is universal. In exceptional cases special arrangements may be made subject to the approval of the representatives of the work-people and the Minister of Labour. In all cases, with the exception of persons not working more than four hours daily, special provisions are made for meal times and rest.

In all employments where machinery is in general use women are not allowed to work between the hours of 8 p.m. and 6 a.m. and not later than 5 p.m. on Saturdays. Women of over 16 years of age who have household duties to perform must be allowed to leave half an hour earlier in the middle of the day in cases where not more than one hour is allowed off at meal times.

In cases where two shifts are employed, women may be allowed to work till 10 p.m. provided they have 16 clear hours before they have to start work again.

Children under 13 years of age, or who are still under the regulations enforcing attendance at the primary schools, are reckoned in with the aged of either sex. It is forbidden by law to employ children :—

1. In industries where there are less than ten adult workers.

In works such as those run by steam, gas, electricity, or in so-called motor works, where no account is specially taken as to the numbers employed.

2. In building in any form, brick-making, mining, colour-grinding, or any underground employment.

3. In any employment generally considered dangerous, or specially unsuitable for children, such as glass-blowing; industries where lead, zinc, or copper are worked; colour factories or the meat trade. The hours of work for children have been lessened independently of the regulations of December 21st, 1923.

Three to four hours per day is the limit, with at least two hours off in the middle of the day.

The position of the unfortunate German middle

222 GERMANY'S INDUSTRIAL REVIVAL

class—embracing in the main all those who were dependent upon fixed incomes, and with re-established currency income-tax stands at $33\frac{1}{2}$ per cent.—remains deplorable. Their privations are far greater than those of any other section of the community. Indeed, it would not be too much to say that the German middle class, as understood in pre-war days, has almost disappeared.

Among the classes which have been most impoverished by the inflation are the students at the universities. The majority of the students come from middle-class families. In many cases their parents have been utterly ruined by the disastrous fall of the mark.

A certain percentage of the students are well-to-do. These are the children of active business men, of landowners and agriculturists, and of those whose incomes have grown notwithstanding—or because of—the inflation. A large number, and probably the majority, of the university students are, however, struggling; poor and very poor. There has always been a considerable number of poor students in Germany; many of the most eminent German scientists have come from the humblest homes, and from time immemorial German university students have earned their living by giving lessons. Recently, they have found it necessary to make a living not only in this

manner, but also by working as waiters, bottle washers, boot cleaners and so forth.

The poor university student has come much to the fore, because, since the war, the number has grown enormously, and has been recruited, not from the new rich, but from the middle classes. The increase of university students has been as follows :—

			<i>Male students.</i>	<i>Female students.</i>
Summer semester	1913	. .	56,693	3,368
„	„	1918 . .	64,931	7,182
„	„	1919 . .	81,112	8,216
„	„	1920 . .	78,395	8,186
„	„	1921 . .	79,235	8,295
„	„	1923 . .	76,608	8,761

In addition to the regular students, there are unofficial students who are admitted to lectures. Of these outside students the men have increased during the period mentioned from 6,568 to 13,933, or more than doubled; the women from 1,080 to 2,929—practically treble.

It is interesting to see that owing to the war the subjects taken by the students have very greatly changed. The percentage of those studying theology, medicine, or philology has considerably diminished, and that of persons taking up the more practical and remunerative studies, such as political economy, chemistry, agriculture, etc., has augmented. The following table will be of interest :—

224 GERMANY'S INDUSTRIAL REVIVAL

		<i>Summer Semester.</i>			
		<i>1914.</i>	<i>1921.</i>	<i>1922.</i>	<i>1923.</i>
Protestant Theology	Male	4,316	3,281	2,904	2,469
Roman Catholic					
Theology	„	2,055	2,149	1,919	1,824
Medicine	„	15,461	14,712	12,746	10,777
Philology and history	„	10,832	9,550	8,290	7,769
Mathematics and natural history	„	6,148	6,203	5,278	4,887
Pharmacy	„	1,076	848	1,073	1,184
Law and administration	„	9,617	19,398	20,329	22,127
Dentistry	„	932	4,675	2,946	1,849
Chemistry	„	885	2,832	3,529	3,586
Agriculture	„	1,353	3,118	2,835	3,257

Undoubtedly the necessity for earning their living is forcing students to devote themselves to practical subjects. This is also obvious with regard to the technical high schools. Male students in these were 12,380 in 1914, 22,873 in 1921, 24,285 in 1922, and 26,181 in 1923. A very great increase has taken place in the number of those studying engineering, practical electricity, chemistry, and mining, while the tale of students taking up architecture has diminished.

		<i>Summer Semester.</i>			
		<i>1914.</i>	<i>1921.</i>	<i>1922.</i>	<i>1923.</i>
Architecture . . . Male		2,182	1,848	1,726	1,699
Building engineering	„	2,765	3,147	3,040	2,854
Machinery engineering	„	3,511	8,859	9,504	9,815
Electrotechnics	„	874	2,970	3,442	3,789
Chemistry and mining	„	1,860	3,619	3,797	4,021

The army of highly trained German engineers, electricians, chemists, and agriculturists is rapidly growing, and in view of the thoroughly practical tuition given to them, the effect of these increased numbers should become noticeable before, very long in the German industries. The great surplus of well-equipped engineers, chemists and so forth will result in many of these finding profitable employment abroad, particularly in Russia, South and Central America, and China, all of which offer a very promising field to technical experts of every kind, especially when hard-working and efficient men are prepared to work for a comparatively low rate of remuneration.

Soon after the war many highly educated and capable Germans went to Bulgaria, accepting posts no matter how humble at the lowest salaries. Most of these men, through their ability and hard work, are now to be found occupying excellent positions in industry, agriculture and trade. The same thing has been happening in many other countries, and the benefits German export trade will secure thereby can hardly be over-estimated.

The land throughout the years 1920-3 had all the appearance of being fully cultivated, and the crops seemed to be well up to the average from the English standpoint. Agriculture is the most

226 GERMANY'S INDUSTRIAL REVIVAL

important of the separate branches of German economy.

Immense strides in progress were made in the thirty or so years previous to the war, owing to the stringent protective tariffs; from 1880 to 1914 agricultural production increased by 80 to 100 per cent. Sugar—according to the figures quoted on July 8th of this year before the Agrarian Committee of the Reichstag—increased by 800 per cent., potatoes by 200 per cent., cattle by 80 per cent.

Apart from tariff protection this prosperity was due to laborious seed cultivation, soil investigation, improvements and experiments in manure, expensive machinery, and the use of chemical research discoveries.

The war has naturally thrown conditions back, and has also deprived Germany of large agricultural areas—some 13 per cent. of her total area and 15·4 per cent. of her arable land; the severed territories are mostly what were known as agricultural surplus areas. About 17 per cent. of the population were in pre-war days dependent on foreign food supplies; this proportion is now naturally increased. During the inflation period, the farmers prospered; the paper currency facilitated the paying off of their mortgages, and bad harvests and under-production generally meant

shortage and consequent high prices. The summer of 1924, after stabilisation, reversed these conditions, but by the autumn the state of prices had once more recovered. Pigs to-day number some 50 per cent. more than in 1915; horned cattle 35 per cent. more. Want of credits and the enormous sums which agriculturists are paying for loans are severely hampering conditions now, and if output is to be secured on a firm footing a reasonable credit on long-term duration is necessary.

Generalisation with respect to the town workers is difficult: some were very poor, and others, having profited individually by the virtual abolition of rent or by various subsidies, had still purchasing power—and abused it.

Before the war the skilled German workers were far better paid than the unskilled. The levelling influence of Socialism has made wages for the skilled and the unskilled practically identical. Many of the older men who were highly skilled and who had large families found it difficult to make both ends meet, while the young and unskilled unmarried workers, who were probably in the majority, lived far better than before the war.

That all classes have been free spenders is clear from the greatly increased consumption of luxuries such as sugar, chocolate, tobacco, beer, wine, etc.,

228 GERMANY'S INDUSTRIAL REVIVAL

since the Armistice and up to 1923-4. New sweet shops, liquor bars, and so on have been opened in large numbers.

According to Dr. Müller, a leading socialist, and to all the statistics available, Germany has been consuming considerably more than she has been producing. She has been able to go on in this manner by various shifts—such as the sale of German currency and German securities abroad. Estimates vary as to the sum which has been obtained from foreign nations against bank-notes, drafts in marks, and German securities which have become worthless, but some investigators believe that it reaches at least £400,000,000, an amount far in excess of the reparation payments made by her.

Beerhouses, wine restaurants and all places of amusement were throughout the inflation period freely patronised, but the great majority of those attending them were young people, and members of the commercial and industrial classes who have always money to spend if only in the form of paper marks !

The pleasing side of the picture, from the point of view of an ordinary visitor then, was the sight of a nation actively employed, apparently healthy, and enjoying itself in very large numbers. Closer investigation, however, revealed the sinister aspect

of the entire situation, namely, the unreal basis, owing to inflation and its inevitable aftermath, upon which German industry stood, and its tendency towards economic collapse.

Dr. Müller stated that German consumption was at this time equal to at least 80 per cent. of the pre-war. That estimate is scarcely an exaggeration: it seems more likely that it is an understatement. We know that the German middle classes were—and still are—suffering and that they, with a good proportion of the working classes, reduced their consumption. On the other hand, the popular places of amusement throughout the country were all overcrowded and new ones shooting up like mushrooms everywhere.

The fact is that a new middle class, composed of business men, speculators, profiteers, and agriculturists, was arising, and the New Rich spent with the greatest lavishness.

The farming classes during the inflation period prospered and spent accordingly: agricultural labourers were well paid and—in common with the rest of the community—lost the habit of saving.

These impressions of German social conditions during the inflation period and 1924 are to-day, in 1925, open to modification in many important particulars. A vast improvement is noticeable in the railway services—tracks and carriages look

230 GERMANY'S INDUSTRIAL REVIVAL

clean and in good repair, the trains are punctual and the service of porters normal and even polite. The food supplied is also good. People in the big towns and noticeably in Berlin seem to be well-fed and well-dressed; the loiterers and beggars who crowded the streets four years ago are conspicuous by their absence. There are very few luxury cars; people chiefly walk to and from their offices, and traffic is mainly "business." Germany is still in process of transition from inflation to reality in a good many senses; prices are unbalanced, being unreasonably high or low—and the people seem rather unbalanced too.

They are inordinately elated by the prospects opening out now and quite confident of overcoming the adverse conditions attached to the realisation of the Dawes scheme and stabilisation. The extraordinary relief of having a stable currency again is in part responsible. Ninety per cent. of the war and post-war profiteers have disappeared, and a spirit of earnest endeavour, hard work, and self-denial has taken the place of the wild spending and idling of the inflation period, though everyone is complaining bitterly and appears not to understand that other countries have suffered also by the war. For some time past people generally have been depriving themselves, not only of luxuries, but also of the necessities of life; they

have reacquired the habit therefore of saving and working to save. Statistics for the consumption of meat—to take one item of food—show that in 1913 the consumption was 52 kilogrammes per head; in 1923 it came to 23 kilogrammes; in 1924 42 kilogrammes, and in the first quarter of 1925 considerably more.

CHAPTER XI

GENERAL SURVEY OF PRESENT CONDITIONS. SUMMARY OF PRECEDING ARGUMENTS. POLAND—THE CORRIDOR—SILESIA

Germany as Competitor in the World-market with Great Britain. Cut-throat Competition. How to Combat this—Use of New Methods—In Organisation—Standardisation—Cheapening Production—New Markets. Co-operation as Remedy.

WE have seen in pre-war Germany the beneficial results of the policy of amalgamation of industrial interests, and of co-operation between industry and finance. The tendency in the Germany of to-day is not merely towards a continuation of this policy, but also towards a strengthening and expansion of it both in theory and practice.

There are excellent reasons on the face of it for this move towards combination between big and important concerns.

(a) The better utilisation of existing capital resources.

(b) The facilitating of the purchase on joint account of raw materials.

(c) The better utilisation and disposal of by-products.

(d) Possibility of joint freight arrangements.

(e) The lessening of expenses with regard to production and marketing.

(f) The opportunity offered for the investigation of foreign markets and the securing of foreign contracts on a scale which in effect must corner them against lesser competitors.

(g) Avoidance of repeated payments of the Turnover Tax, which adds anything from 5 per cent. to 15 per cent. on to the cost of the raw material.

There is also another purely domestic reason for what is already in working progress, namely, the strong tendency of the vertical and horizontal industries to combine, and that is the effort to overcome in the working of undertakings those internal difficulties which are a definite outcome of the war. It is, in fact, a movement aiming to counteract the results of the slackened discipline, the want of materials, and the disorganisation which were caused by the minor officials, employees and skilled workmen having been diverted by the exigencies of war in such numbers from their original callings and positions.

This being the goal of German industrialists to-day, it is being attained by the creation of purchasing organisations which buy in on joint account; by the interchange of spheres between

234 GERMANY'S INDUSTRIAL REVIVAL

large concerns; and by the appointment of inter-linking members on the boards of directors of management.

In some cases concerns manufacturing similar products have appointed a joint selling organisation, thereby reducing materially the cost of advertising and selling. In the motor industry, for instance, they have gone so far as to arrange that each individual works, while preserving its own identity, only manufactures one type of car.

These methods are unquestionably favoured by the banks, and more especially by the Reichsbank under the new *régime* introduced by Dr. Schacht, whose policy would seem to be towards the encouragement of this grouping system, and the strengthening of the well-established and large concerns through combined operation, rather than the giving of assistance to new and struggling ones. His aim apparently is to utilise all available capital in the most efficient way, whilst another reason possibly may be the desire to combat the idea and progress of State Socialism. Even before the war the German State Railways did not manufacture their own locomotives and rolling stock, and this policy meant an enormous impetus being given to this latter industry, putting it in an exceptionally strong position to compete with Great Britain. German locomotive works to-day are particularly

well equipped and have a capacity of over 5,000 locomotives per annum.

Meantime, the large number of locomotives, carriages and waggons surrendered to the Allies had to be replaced; the result in actual fact was that the German works have been kept fully employed, and that all replacements are up to date, and efficient.

Had English railways pursued the same policy our carriage and locomotive trade would have been in a much healthier condition to meet foreign competition, and to manufacture for the markets of the world.

There is no doubt that this system of combination in commercial undertakings greatly benefits the German manufacturers, as it enables them to share jointly in any loss that may be necessary in order to secure openings in new markets, and at the same time acts as a deterrent to under-quote in other foreign markets owing to internal competition, their mutual interests in the different concerns securing to them a proportion of any profit that may be made. At present, as has been said, the German foreign export trade is regulated by the German Government Commission for Export and Import. Each branch of industry has its own office under this organisation. These bodies have been constituted by mutual agree-

236 GERMANY'S INDUSTRIAL REVIVAL

ment: they control the invoice prices and aim at avoiding selling abroad under world-market prices. The State, at the same time, gets a revenue, as all exports are taxed, according to circumstances, 1 per cent. to 10 per cent.

Germany has undoubtedly been underselling Great Britain in neutral and in home markets in a number of lines, especially in relatively light goods, which demand much labour but little raw material. German competition has been very hurtful, not because of its vast extent, but because of the fact that in many cases German prices were so far below the British cost of production. Certain classes of goods have been sold at half, one-third, one-fourth and less of the British cost. The German import licence protects her own home market from foreign competition; the low wage and long working hours are also determining factors. As has been observed, an average of 58 hours a week is being worked in certain localities and industries: a spell of 68 is not exceptional. Thirty-five shillings a week is an accepted wage; two pounds considered high. Figures for unemployment in the principal trades unions, other than the miners' unions, stood in January of this year at $8\frac{1}{2}$ per cent., with 5.5 per cent. of short-time workers. Some 436,000 only were in receipt of out-of-work relief at this date. Nothing could be more indicative of the turn for the better

in Germany's internal trade since stabilisation. Overtime was being worked in the textiles.

More than ever also are the German industrialists and engineers exercising their ingenuity to secure economy in the utilisation of material, thereby lowering costs of production. By-products have been recovered, electrical methods tested in new connections, and the latest American appliances experimented with wherever an opening seemed propitious; the brown coal market and fields are being extensively exploited. The coal situation this last year is a concrete example of the result of these tactics; in place of shortage Germany has actually to-day a considerable over-production of coal—incidentally tending, of course, automatically to reduce the amounts she will import from us. This modernisation of plant, use of the newest technical inventions in machinery, and the application of the results of the latest scientific research to details in all mechanism—more especially with respect to those industries in which chemicals play an important part—together with the re-introduction of the piecework system, are making possible an increase in output, despite—or because of—which we find that in many of the heavy industries 25 per cent. to 30 per cent. less workmen are being employed. In the seamless tube works, for example, where formerly 1,000 men were employed, there are now 750, yet output has increased.

238 GERMANY'S INDUSTRIAL REVIVAL

The steel industry is for the same output consuming materially less amount of coal than was required in pre-war days—this is due to new methods of furnace construction and better utilisation of the coal. Germany is to-day in the position of being able to export rails to the United States^o and compete with American producers, notwithstanding the tariff.

No better illustration of the success attending the present German industrial policy in respect of amalgamation, reorganisation, re-equipment, and far-sighted initiative could be found than in the case of the Deutsche Werft motor-ship contract, so recently before public notice. This combine successfully under-bid our shipbuilders—and it was not only the longer working hours and lower wage-cost which enabled it to do so. The yards are equipped with the most modern requirements, all installed since the war in the belief that motor ships would be the main asset of the naval industrial future. The concern was closely connected with those which make the steel sections, plates, and castings. It has, in the next place, adopted the principle of standardisation in design and in the processes of manufacture and assembling. There was finally the powerful factor of the Deutsche Werft's association with the A.E.G., which produces the Diesel engine. The A.E.G. has erected works for the manufacture of this marine engine,

originated by Meßrs. Bourmaeister and Wain, of Copenhagen, and has standardised production to such an extent that there are large numbers of cylinders and other parts constantly in construction for stock orders. There are therefore no development costs to add to the engine prices, and quick delivery can be guaranteed.

Organisation, in short, between trade and industry has never been better; the co-operation between the large industrial interests never more efficient.

The development of the electric supply and of transmission mains since the war has been phenomenal, and the Germans are straining every nerve to extend and improve it further. Railway electrification has made extensive progress and where installed has proved eminently satisfactory. German and Austrian railway authorities are actively engaged in considering the extensions of this method of haulage, and it may not be many years before the traveller will go from Berlin to Dresden and Vienna, from Berlin to Munich and Basle, and from Vienna to Basle by trains hauled electrically. Nothing has been more remarkable than the rapid introduction of electric motive power for all purposes during the last four years in Germany—proving very satisfactory both from the point of view of cheapness and of increasing the output of various undertakings. Private

240 GERMANY'S INDUSTRIAL REVIVAL

enterprise has worked hand in hand with municipalities and the State in bringing about this result.

Germany is gaining greater and greater hold in Austria, and the German iron and coal magnates have their interests in, or have secured the control of the best mineral deposits, not only there but in Jugó-Slavia; they are co-operating with many interests in Czecho-Slovakia.

Commercial Treaties, definitive or provisional, have now, with the closure of Clauses 264–267 of the Versailles Treaty, been concluded with all the most important countries, except France, with whom negotiations are proceeding, and Poland. This marks a very definite step in industrial recovery. Coupled with this is the introduction of the new Customs Tariff bill—whose progress and development should be carefully watched. The general tendency in effect of the tariff provisions will be towards a strict and ever stricter protectionist policy; as regards Great Britain, tinplate and cotton yarn will possibly be the items most affected adversely.

German competitive power will presently be increased. In the absence of a large army and navy, her general expenditure will be small, and while it is true that it is proposed at this moment to allot what has been thereby gained to the Ministry of Labour for the augmentation of sick benefits, pensions, and so on, the exact amount

thus allocated will not be apparent until the 1926-7 Budget is published. The estimated sum to be apportioned to the Reichsarbeitsministerium is somewhere about four millions. As regards taxation, not until Germany is actually making her reparation payments will it be on a level with the British and French. At present Englishmen pay every year per head of population in taxes infinitely more than the Germans.

Of course Germany's power to compete with her manufactures in the markets of the world depends not only on the way in which the reparation problem is handled; not only on international peace, law, and order; but also on the stability of Germany herself.

She might be faced with internal difficulties which would lead to the break-up of the State. Some of the monarchists and reactionaries dream indeed of a rising against the Entente similar to that of 1813 against Napoleon. Secret societies advocate resistance against the French, the reconquest of the lost territories, the inclusion of Austria with Germany in some form or other, and even co-operation with Russia. There remains the possible danger of trouble between Germany and France, and between Germany and Poland.

Difficulties with Poland are real—centring round that debatable ground the "Corridor," of such vast importance to either country. There are

242 GERMANY'S INDUSTRIAL REVIVAL

undoubtedly good reasons for considering its possession of moment to Poland, since it means her only egress to the seaboard; on the other hand, the separating of East from West Prussia in this manner is extraordinarily disadvantageous to Germany from every standpoint, industrial or political. These post-war boundaries were fixed by the Ambassadors' Conference in October, 1921. According to the German figures of December 5th, 1917, the then Prussian province of Silesia comprised an area of 13,232 square kilometres, with a population of 2,230,869. By this decision of 1921 Czecho-Slovakia received 316 square kilometres, with a population of 48,469, and Poland 3,733 square kilometres containing a population of 919,322 inhabitants. German statistics for 1913 reckoned the production for that year, of the portion retained by Germany and the territory handed over to Poland respectively, as follows:—

GERMAN FIGURES FOR YEAR 1913.

Production in thousands of tons.

<i>Product.</i>	<i>Present German Silesia.</i>	<i>Portion of Silesia added to Poland.</i>
Coal	10,298	32,506
Iron ore	4.2	130
Zinc ore	94.3	426.8
Lead ore	15.3	37.3
Coke produced	1,119	1,146
Coal briquettes . . .	112	321
Pig iron	476	518
Steel ingots	379.9	1,003
Zinc	—	167.9
Lead	—	39.9

The problem of the upper Silesian iron and steel industry has always—in pre-war days—been an increasingly difficult one. First, because the coke produced in Upper Silesia was not very satisfactory and large quantities had to be imported from the Ruhr; secondly, because of the dwindling production of suitable iron ore and the consequent necessity of importing this from Spain and Sweden, involving long railway, or partly rail and partly river transport.

The position of Upper Silesia before the war as regarded coal-deliveries to other parts of Germany was not very favourable either, but this difficulty was largely minimised by the special tariffs arranged by the German State railways. Without such subsidies Silesian coal could scarcely have competed with coal from the Ruhr at all, even in Breslau itself.

The harnessing of water power as substitute for coal in railway propulsion and factory operations throughout many parts of Europe; the ever-extended use of oil both under the boilers of steamships and in internal combustion engines, for land as well as for marine purposes; the slackness of industry resulting from the war; and, finally, the economies effected in the actual utilisation of coal, have meant its over-production all over Europe. Silesia is definitely suffering

244 GERMANY'S INDUSTRIAL REVIVAL

from and with this general over-production. The coal output of what is now Polish Upper Silesia in 1913 was 32 million tons; this fell to 25·8 million in 1922, and in 1923 was still but 26·6 million tons. The reason given by Germany for this fluctuating output was that the Poles cannot work the Upper Silesian mines. As a matter of fact the coal production fell off because Poland was desperately short of trucks—only a tithe of her war loss had been made up—and the Germans hampered her Upper Silesian mines by neglecting to provide them. Shortage of trucks was Poland's most important and most difficult problem. Every Polish report dwells on this. As soon as the French entered the Ruhr, Germany provided all the coal trucks required by Upper Silesia, and coal production expanded immediately.

The ceding of this territory is naturally felt by Germany; she has lost thereby from this portion of the country income for her railways, and the taxes, together with one of the most important zinc-producing tracts of Europe.

That difficulties owing to the altered frontiers have arisen in certain industries whose finishing works are now in German Silesia, whilst their raw material is produced in Polish Silesia, goes without saying. The steel works in Polish Silesia also find it difficult to procure the necessary scrap, much of

which has to come from the Ruhr; while the steel works in German Silesia have to procure the dolomite they require from Polish Silesia. Time will, however, remedy these evils.

The greatest loss Germany has suffered by the cession of Polish Upper Silesia is undoubtedly that of the coal contained in and mined by that country. But in view of the fact that there is large over-production of coal in Germany herself to-day, as in most parts of Europe, and bearing also in mind the unsatisfactory pre-war position referred to above of the Upper Silesian coal fields, the complaints made on this point lose much of their force.

The attitude taken by the German Socialists respecting the thorny question of the Eastern frontiers of Germany in connection with which Polish Silesia plays such an important rôle, and whose rearrangement the present German Government will undoubtedly do all in its power to effect so as to regain the "Corridor," is illuminatingly illustrated by the following quotation from an article by Ludwig Quessel in the current May number of the *Sozialistische Monatshefte*.

"In the last days of July 1914 it was Great Britain that brought about the war in Europe. Had the British Government clearly and definitely informed the German Government

that she would side with France, no German Government would have dared to declare war on France. Only the fact that England allowed her attitude to remain in doubt is responsible for the war; and France is now quite convinced of this. In this attitude of the British Government is the real responsibility for the war to be found.

"If one recalls this fateful fact it will be evident that to-day it depends on England whether there will be peace or war in Europe. Without the consent of the British Government no German Cabinet will undertake war-like operations in the East. If England wills that there shall be no war on the Vistula there will be none. A very disquieting symptom, however, is that public opinion in England seems already agreed that the next war in Europe will break out on the Vistula. Without any doubt, London is dissatisfied with the Western frontier of Poland. The English Press is demanding that the portion of West Prussia and Upper Silesia which have been ceded should be returned to Germany. The art of British politics which is to promise the property of others to the people whose swords it wishes to utilise for its own purposes is once more triumphant."

Whatever the claims or desires of Germany, there can be no doubt that any attempt to interfere with the existing frontier line of Poland would have the most disastrous effect on Polish public opinion, would meet with violent opposition, and

would postpone, if not render impossible, the establishment of stable conditions in Europe.

In conclusion, it cannot be said that the war has fundamentally affected the German industrial methods or mentality. They still feel confident of their ability to achieve success, and hope that they may be able to resume the old pre-war commercial and industrial relations and secure that supremacy in the world's markets which they were so rapidly acquiring.

The attempts which are being made to attract English and American capital to assist the development of German industry, by offering a debenture of well-established firms, backed by all the securities they can put up, clearly indicate this. It is hoped that, as in pre-war days, investors will be satisfied with a high yield, allowing the German firms to secure all the contingent profits which accrue by the expansion of business. No syndicate participations are offered, nor is it suggested that Englishmen should be placed on the German boards or have an acknowledged share in the management. When the Germans realise that their efforts in this direction are not going to be successful, they will fall back and offer real participations—which should be accepted.

The principal German bankers still hold considerable blocks of shares in all the most important

248 GERMANY'S INDUSTRIAL REVIVAL

German industries, and are in great measure dependent for existence upon the success of the big industrial groups. Since the end of the war they have made every effort to secure foreign credits so as to enable them to continue their pre-war policy. It is not to their interest that the large profits which they foresee German industry will earn, once peace is really restored in Europe, should be divided with English—or any other—shareholders, if only they can raise the funds they require by other means. German manufacturers, owing to the support given them by the banks, are in a position to modernise, increase, and improve their plant without having to resort to public issues for that purpose. In this country banks trade with the money of the depositors and cannot therefore act as do the German—dealing with their own capital. Our trust companies, moreover, whilst definitely helpful, are not so powerful as the German, nor are they interested to the same extent in the furtherance of purely home industries. In no country is it an easy matter to install new plant at a time when industry is not prospering, and here it is practically impossible. The English public will not subscribe additional capital simply just when and as it is required and could most usefully be employed. Prior to 1875 our local and private banks financed

individual British enterprises to a considerable degree, and it was owing to the pursuance of this policy that our world market was created. To-day finance in this country has largely become an industry in itself and one having only a very slight *direct* interest in our manufacturing industry—despite the fact that upon the prosperous development of this last factor has been built up the wealth and position of the country.

The net result of the German banks owning these large blocks of shares in German industries, and having such direct interest in their prosperity, was to make them become live and active prospectors for new industrial enterprises—such as railways, harbours, docks, and mines, together with factories and electrical undertakings of all kinds. In this way fresh markets were automatically found for German manufacturers, and these not only as regarded the original articles or equipment marketed, but also in connection with the regular supply of requirements and renewals necessary in the normal course of operations.

The great German industrial combinations, working in the closest co-operation with their banks—frequently with the aid of British money—and supported by the active intervention of their Government, have been able to place British industry in the position of having to wage a most

250 GERMANY'S INDUSTRIAL REVIVAL

unequal contest. It has been no uncommon spectacle in pre-war days to see German banks, financed by British money, creating new enterprises with the main portion of the resultant orders going to German manufacturers, in the teeth of the British industrialists who were meantime unable to secure the necessary financial and State support for the self-same undertakings! Similar catastrophes are taking place to-day—as witness the two large contracts which went just recently to America, and which would have brought some £2,000,000 into this country. British Finance was not prepared to assist industry here: America was, and did.

English investors would do well, in the interests of British industry, upon which the very existence of the country depends, in any case to see to it that they do not merely loan money, no matter how high the rate of interest offered, or how attractive the conditions offered, or what the nature of the security may be, but that they insist on *really sharing* in the prosperity of German industry itself, and getting a portion of the large benefits which the Germans are certain to obtain. They should also make sure of a participation for our industries with the Germans in all orders received in the markets of the world.

The lever in the hands of Great Britain and the

United States is the capital and the credit which they command: in our case we may add the inducement of Imperial preferences. Any loans made to German industry, or for any object to the German nation or nationals, should be conditional on a secured participation in the uncovenanted profits that accrue therefrom. The French, Belgians, and Italians are quite alive to this state of affairs, but it is doubtful whether British industrialists properly appreciate the real situation to-day. We have two weapons or inducements. Call them what you like, for both are required in dealing with Germany—finance and Imperial preference. The influence of Imperial preference may be best illustrated by an example. Before the present Conservative Government came into power a very well known English firm of manufacturers was trying without success to get an arrangement with a German firm for dividing territories and fixing prices, so as to prevent that cut-throat competition which brings down wages. The Germans would do nothing, but the moment the result of the election was known the German firm telegraphed to London asking that their representative might come over and fix up the arrangement, to which so long as Imperial preference was no part of British policy they would not even listen.

252 GERMANY'S INDUSTRIAL REVIVAL

It will not be always necessary to have a controlling interest in German industry or means of transport, but we ought to secure such a representation as will give a voice in the methods to be adopted, and keep our industries informed as to all that is going on. This will only be carrying out the policy adopted by German banks and industrialists before the war all over the world, where they founded local national banks, organised, subscribed to, and controlled by nationals, but in which the Germans were interested and which they helped to manage. A noteworthy example is to be seen in the electrical manufacturing concerns started by the A.E.G. and Siemens-Schuckert in Russia, Belgium, Austria, and Italy. Others include the electric tramways and electric power companies of Rouen, Barcelona, Buenos Ayres, Rosario, Genoa, Petrograd, and Moscow, the Siemens-Schuckert electric manufacturing work at Stafford, and the many branches of the Mannesmann Company.

All these and many more were local companies constituted under local laws and with local directors; not German companies. That policy proved immensely successful and should guide our policy in the future.

The German industrialists do not take quite the same line as the bankers. They are more reason-

able, and enlightened. They have repeatedly said that they are not only willing but anxious to find some way of co-ordination and co-operation between their industries and ours, and are agreed that, if we advanced money to help them, our industries ought to share in the orders resulting therefrom. The members of the German Government with whom the question has been discussed expressed similar views.

It is the considered opinion of certain of the best judges of international trade that should the Dawes scheme effectively restore Germany's solvency, should her credit abroad become once more established, and should meantime her protectionist policy—as is politically foreshadowed—be extended, then this country, as being the one least protected, will automatically become the outlet for her cheap goods export trade.

At present, judging by statistics of imports and exports, the latter is still showing an adverse balance. The following figures here are of interest.

Exports of Finished Goods.

1925, January-March	. . .	2·039·5	millions of marks		
Month of April	. . .	672·3		”	”
” May	. . .	732·1		”	”
In 1923 exports amounted to		6·079·0		”	”
” 1924	” “ “	6·566·0		”	”
” 1925	” “ “	8·260·0		”	”

In 1924 exports increased 500,000,000 marks,

254 GERMANY'S INDUSTRIAL REVIVAL

over 1923, whilst imports increased three milliard marks.

During the months January to May of 1925 the exports showed 3,444,000,000 marks, and imports 5,765,000,000 marks.

This increase is ascribed to the granting of foreign credits consequent upon the Dawes scheme.

Every German producer has export on his mind. Many former markets are closed. Italy is beginning to be self-supporting; the Baltic States for political reasons are not eager to do business with him. Russia has small purchasing power at present, although a useful outlet.

The line of least resistance is, in short, to invade our home and overseas markets.

The *general* economic position is difficult, and in any question as to how Great Britain can protect herself against competition certain facts must be faced. The productive capacity of the world to-day is from 50 per cent. to 60 per cent. greater than it was, but although the need for goods is as great or greater, the purchasing power everywhere is less in all those countries which were concerned with the war: other countries, such as China and Russia, have ceased being buyers at all for the present. Now in order to preserve their assets, and also prevent their workers from

swelling the ranks of the unemployed, existing works have to continue to produce and to sell their wares as long as they can possibly afford to do so—this means at ruinously low prices and a general condition of cut-throat competition throughout the world. Lowering the costs of production and at the same time standardising it is the only way to stimulate the world's demand, whilst standing charges must be reduced by the fusion of competing interests, so as to minimise expenses connected with selling organisation, advertisement, designing, and supervision. If, with our high cost of production, largely due to high wages and short hours, we are not to lose all hold on the markets of the world, we must put our house in order in these ways.

We should carefully examine those methods by which Germany created her vast pre-war enterprises. Why should we not follow her lead and successful policy abroad by the formation of local companies, in which the people of the country would be financially interested and on the boards of which nationals would act as directors, thus assuring their personal interest in the success of the undertaking? Our manufacturers should be more ready to meet local requirements, and to adjust British to foreign methods; their representatives should be men who know the language

256 GERMANY'S INDUSTRIAL REVIVAL

of the country, or be able at least to speak German, with a specific knowledge of the region in which their work lies. British manufacturers are too often at no pains to inform themselves with respect to the foreign firms who are anxious to do business with them—frequently not even taking the trouble to send in quotations. British terms of payment are extremely rigid and withal there is an extraordinary lack of keenness to secure the prospective business. German firms, on the other hand, have always consistently investigated local requirements in any contemplated field of activity, studying in detail the needs of potential customers. A concrete example of the contrast in working of the two policies is afforded by what occurred not long since in South America. A tramway required rails to match those already installed, which were of the American Loraine section. No British rolling mill was prepared to roll this section. It was not a very expensive matter to lay down the required rolls, and Belgian and German mills will always undertake such a job. Not until the British manufacturers found that from their hesitation they were losing orders on a considerable scale did they consent to put down these rolls; meantime much business contingent upon the undertaking had gone elsewhere.

Co-operation with Germany in regard to those

modernised schemes of electrification in which she has gained such wide experience, at least might be possible.

Such co-operation, whilst it might mean that certain portions of plant were manufactured abroad, would definitely help to prevent the present cut-throat competition, and in the end probably result in fewer orders leaving this country. The prices moreover accruing to our industries would be considerably improved. Not that these would necessarily be raised. Obviously, however, production on a larger scale, and the fact that our works were filled over a period of years in such a manner as to enable an economical scheme of continuous production to be laid down, would automatically reduce the cost of the finished article. Great developments are meanwhile possible imperially in the way of new harbours, railways, and roads, together with an increased application of hydro-electric power, and the expansion of mining. If only British enterprise to-day will take the opportunities offered, there are new and wide fields awaiting development in Poland and the Baltic States, Jugo-Slavia, Austria, Hungary, and Turkey.

Another suggestion is that some system might be found of limiting the amount of German imports to our country.

258 GERMANY'S INDUSTRIAL REVIVAL

The German Industrialists meantime, who do not want to antagonise our markets or create political difficulties and hostility through their economic efforts, have yet another policy to put forward—one which has received, not only careful consideration, but also approval from many of our leading economists, politicians, and financiers.

This arrangement, shortly described, is what is known as *Horizontalaufbau*. It means—briefly summarised—an international arrangement in the principal industries, with the object of avoiding over-production. This would involve an agreed output for each industrial country and an agreed division of neutral markets. Also an exchange of manufacturing experience—world standardisation, in fact, of products; and so a cheapening of production.

It seems the only way to overcome the difficulties created by war conditions—the decreased purchasing power on the one hand, and the largely increased power of production on the other. Of course this scheme would only be practical for those industries which, in the respective countries, are controlled by well-disciplined organisations.

The leaders of German and of English industry are agreed that co-operation on these lines would be extremely advisable. The difficulties are well expressed in the following extract from one of the

most able directors in connection with the ship-building and engineering industries :—

“ Great questions like co-operation can only be settled if agreements can be arrived at between syndicates representing the whole industry. If there is one field in which England and Germany are quite unnecessarily spoiling each other's business, it is the coal industry. They are the largest coal producers in Europe. Only Czecho-Slovakia and Poland produce coal in sufficient quantities to be able to export it, and this to a limited amount. If we could come to an understanding with Great Britain we should be in a position to fix the market price for Europe. . . . In the event of raising the price we might employ the increase to enlarge the export to extra European markets. This programme is relatively simple, but it presupposes that both parties are so organised as to render the carrying out of such a proposal possible. For this purpose it is essential that the industry in both countries should be brought into one well-disciplined organisation which allows agreements to be entered into as regards the amount to be produced by each country, enables the selling price to be fixed, and provides protection for the customers of both parties.”

The difficulty in forming such a combination is that *our* industries—notably, that is, our coal and steel industries—are not so completely co-

260 GERMANY'S INDUSTRIAL REVIVAL

ordinated in themselves, so sufficiently centralised internally as to make them able to co-ordinate and centralise internationally. Meantime, however, the question is occupying the best brains in both countries, as this cut-throat competition is ruin-
ation to all concerned and may prove fatal to ourselves in the near, if not in the immediate future.

Co-operation in some form or degree is surely possible—and undoubtedly the one sensible solution.

It has already been pointed out that as a result of the war the productive capacity of the world has been increased, whilst owing to the general impoverishment purchasing power is materially diminished; in addition to which the disturbed conditions now obtaining in Russia and China have practically deprived us of the markets of these vast areas and populations. The consequence of this state of affairs falls more particularly on the two great industrial countries which rely for prosperity on the export of their manufactured goods—Great Britain and Germany. The supply already much exceeding demand, competition in any line is very severe, and prices are cut to the bone. In order to keep their works going and gain a footing in new markets, manufacturers in many cases are not only supplying goods without making any profit, but even at a loss.

The only beneficiaries are the non-industrialised nations, who are causing both the great countries to fight each other *à l'outrance* ; they are gradually bleeding to death. And both must suffer, as there is little chance of either being able finally to kill the other, and so obtain a monopoly as the one manufacturing nation of Europe, though even if this were possible there would still remain the serious competition of the smaller but very keen industrial nations such as Belgium, Czecho-Slovakia, Switzerland and Italy, not to mention the world-wide competition of the United States. Co-operation between the competing nations is the only remedy, such as brought about the healthy conditions in the electric cable industry of this country. Here, through the "Cablemakers' Association," territories are rationed, prices fixed, and the orders divided between its members in agreed-upon proportions.

The British Electric Manufacturers' Association (B.E.M.A.) is another example of the way in which industries benefit by close co-operation and mutual assistance. These two associations have not only benefited the manufacturers, and given security of tenure to the workpeople employed, but have also greatly helped in furthering the adoption of electricity in this country, placing, moreover, the electrical industry in a position to

262 GERMANY'S INDUSTRIAL REVIVAL

compete favourably in the world's markets. A prosperous industry encourages enterprise, and develops expenditure in research work: a struggling industry cannot.

It is not only, however, as regards our home industries that co-operation and mutual understanding have proved successful. There is an outstanding example in the International Association of Electric Lamp Manufacturers. Before this body came into existence foreign lamps were underselling ours in all the markets of the world. To such an extent was this the case that the prices accepted were in some instances actually less than the cost price to British manufacturers of the raw material only. Now we have secured our rightful position, thus bringing prosperity to the industry—employers and employed alike.

Eventually this means bringing down the cost to the consumer, as the manufacturers fully realise that the more cheaply lamps can be sold the greater will be the demand, and that a small profit on a large turnover is preferable to a large profit on a small sale. New inventions and new methods, all involving very large non-remunerative initial expenditure, can and will be undertaken by prosperous firms—impossible to those fighting for existence.

Cut-throat competition is not favourable to the consumer, as, eventually the weaker firm—which in Great Britain, owing to our being a non-protected-trade country would mean our entire industry—might be wiped out: in such case we should be left at the mercy of foreign manufacturers who would—and do—combine, amongst themselves. They would simply charge us what they liked or even starve us entirely.

The industry, a basic one, which is suffering most to-day in this country is our coal trade. As has already been pointed out with reference to the Silesian coal fields, there are special reasons which are responsible for the large decrease in the world's coal-demand. The development of the water-power resources of the world and the consequent replacement of steam power for operating rail transport and factories, is one of growing importance.

The increased use of electrical power again has enabled very poor qualities of fuel, hitherto thought useless, to be burnt *in situ* in large super-stations, transmitting electricity over vast areas of country; this has further lessened coal demand. The war taught the necessity of economising fuel, and new processes both in industry and in domestic economy have brought about considerable economy in coal consumption. The use of oil,

264 GERMANY'S INDUSTRIAL REVIVAL

both, under boilers in our ships and in internal combustion engines, is becoming ever more popular ; bunker coal demand has in this way been adversely affected.

In Germany the Coal and Steel Syndicate control the prices and output of practically all the German mines and steel-works ; the markets and orders are divided between them.

No organisations as well disciplined as these exist in the heavy industries of this country ; and until such organisations are brought into being unbridled competition between ourselves and Germany must continue—a state of affairs which cannot be called satisfactory to either country.

If steps could be taken and initiated in the spirit and sense of the letter quoted, it would go a very long way towards solving the difficult problems before us and helping our grave national industrial position.

The Commercial Secretary to the German Legation in London, Dr. Wendler, recently gave a most interesting address to the Commercial Society of the City of London School, which—in this comparison of German with British methods—is instructive : it carries its own warning and is moreover in the nature of an object-lesson in the question of Germany's industrial future.

“Side by side with the Economic Parliament provided by the Constitution stood the many ramifications of the professional and local organisations of industry, trade and labour, and further, those mighty combines, the best known of which bore the name of the late Hugo Stinnes. There was hardly a branch of industry which had not been seized by the general tendency towards forming combines—i.e., towards concentrating forces. A third and, probably, the most powerful asset of German economy was the natural assiduity and industry of German people. The normal German was devoted to his work in quite an extraordinary manner, and as a rule he carried this devotion to such an extent that little time was left over for other aspects of life. The owners of a business or its principal officials who regarded their day's work to be finished after eight hours' activity were certainly among the exceptions. The labourer who, when need arose, declared his readiness to work rather longer than the eight hours, knew perfectly well that his chief or director devoted even more time to the prosperous advancement of the business than he was asked to do himself. One must bear these psychological factors in mind when one hears of the exploitation of the workers. Every worker knew that the extended working hours were an urgent necessity during the transition to normal conditions.”

The fact must be faced that once conditions are

266 GERMANY'S INDUSTRIAL REVIVAL

fully stabilised in Germany—and they must be for the sake of the peace of the world—she will occupy an exceptionally good position in the matter of competition. She must indeed capture the world's markets unless steps are taken to make it worth her while not to do so—steps which could not have been taken before the war but to-day are possible, and which would prove of mutual advantage to all concerned.

INDEX

Except where otherwise stated the Reference is to the German.

- ACCIDENT Insurance, 213, 214
Administration
 *Imperial, *1 sqq.*, 28-9
 Post-War, 16 *sqq.*
 Post-Inflation Period, 95 *sqq.*
 Post-Revolution, 31
 Present (1924-5), 21 *sqq.*
 Relations, with Industry, 3, 5,
 15, 21 *sqq.*
Afabund, the, 130
Agents, 5
Agrarian Representation, 18, 19
Agriculture, 62, 63, 66, 67, 68,
 70 *sqq.*, 88, 99, 225 *sqq.*
A.E.G., the, 7 *sqq.*, 106, 238-9,
 252
Allied Troops and German People,
 relations between, 162 *sqq.*
Alsace-Lorraine, 69, 72, 90, 161
Amalgamations and Combines,
 10 *sqq.*, 232 *sqq.*
 British, 261-2
 British-German, suggested,
 252-3, 256 *sqq.*
Amusement, 53, 228-9
Anglo-Argentine Tramways, Elec-
 trification of, 7
Anglo-German Treaty, the, 152,
 162
Aniline Dyes, 5, 145
Arbed, the, 174
Arbitration Boards, 133-4
Area, post-war, 69-70, 87, 226,
 242
Association of German Trades
 Unions, the, 129
Aumetz Steel Works, 173
Aussenhandelsstelle, 156
Austria, minerals of, 240
Auxiliary Service Law, 133

Banks, 6 *sqq.*, 52, 99, 102, 103, 104,
 105-6, 179, 234, 247 *sqq.*,
 252
 Note-issuing, 10
 Reserves, application of, 49
 British, 7, 9, 106, 248-9
Bauer, Herr, on coal under-pro-
 duction, 61
Bavarian Parties, 17, 19
Belgian Directors of Saar Steel
 Works, 174
Belgian Troops, 163
Berlin, Taxes of, 113
Berlin and Biana Metal Industry,
 123
 Berliner Tageblatt, 19
Bernhard, Georg, 20
Bismarck, 3
Blanc, Louis, 171
Bochum, Corporation of, Loan of,
 118
Bolshevism, 24
Bolz, D. F., on Decreased Output,
 &c., 66-7
Breslau, 23
Bricks, 67
Briquettes, 74, 191, 206
British Business, Language and
 Methods, German Know-
 ledge of, 3-5, and Util-
 isation of, 10
British Business Methods, 255-6
British Electric Manufacturers'
 Association, the, 261-2
British Investors and German busi-
 ness, 7, 9, 106, 247, 250 *sqq.*
British Loans, 7, 9, 106, 114, 162,
 178-9
 Points to heed, 9, 247, 250 *sqq.*
British Occupation Troops, German
 attitude to, 162-3, 165
Brown Coal Industry, and Power
 Production, 190-1, 193,
 200, 237

- Budgets, British and German, 108 *sqq.*
 Buenos Ayres City tramways, Electrification of, 7, 8
 Bulgaria, German workers in, 225
 CABLEMAKERS' Association, 261
 Canals and Canal Systems, 87, 180-1, 195 *sqq.*
 Capital, Inflation and, 43 *sqq.*
 Watering of, 48
 Working, 116
 Lack of, 102
 Sources of, 6 *sqq.*, 14, 103 *sqq.*
 Cartels, 11 *sqq.*
 Catholic Church, Party Representing, 19
 Cattle, 73, 226, 227
 Cement, 67
 Central Party, 19, 128
 Central Union of Employees, 130
 Central Union of Industrial Employers and Employed, 131 *sqq.*
 Chemicals, 67, 145 *sqq.*
 Child Labour, 221
 Christian Socialists, 23, 24
 Christian Trade Unions, 128-9, 130
 Church Tax, 113
 Civil Guard, the, 22
 Civil Servants, 131
 Civil Service, the old, 25, 29
 Climate, 88
 Clothing, 212-13
 Coal, *see also* Brown Coal, and Lignite
 Consumption, 75
 Control, 140 *sqq.*
 Exports and Imports, 65, 73, 74, 79, 86, 187-8
 Mining conditions, 139 *sqq.*
 Production, 2, 55, 57, 65, 68, 73 *sqq.*, 141-2, 243-4, 245
 Reparation deliveries of, 61, 86
 Ruhr district, 185, 187
 Saar Mines, 85-6
 Silesian, 242, 243, 263
 Situation, 1924, 237
 Stocks, 62
 Wealth in, 89-90, 191
 Coal and Steel Syndicate, 264
 Coal Trade, British, 263
 Coal Trucks, Polish lack of, 244
 Coloured Troops, French use of, 165-6
 Commercial Aims, 162, 254, *et alibi*
 Commercial Methods, 3 *sqq.*, 10 *sqq.*, 232 *sqq.*
 Commercial Treaties, 240
 Commission of Financial Control (proposed), 168
 Communism, 22, 99, 136-7
 Communist coup of 1921, 134
 Demonstration (1920); *fiasco*, 24-5
 Party, 21
 Propaganda, 22
 Reichstags-mandate, 25
 Trades Unions, 129
 Companies
 Existing, additions to capital of, *table*, 48
 Expansion of, encouraged during the war, 14, 77-8
 New, *table*, 48
 Competition *versus* Co-operation, 263
 Competitive power, increase in, 240 *sqq.*
 Conclusions, 232 *sqq.*
 Consumption in relation to Production, 31, 67, 68, 78, 98, 228-9
 Control, Centralisation of, 27-8
 Corporation Tax, 111
 "Corridor," the, 241-2, 245
 Cotton Imports, 57
 Cotton Industry, British, 90
 Credit, deliberate Ruin of, 29 *sqq.*, 54
 Domestic, primary sources of, 103
 Foreign, 103
 Long, 14, 104
 Real and Apparent, 104
 Restriction of, 101
 Credit Banks, Private, 104
 Creusot, 177
 Cuno, Dr., on Reparations, &c., 40-1
 Currency, Deterioration of, *see* Mark, Fall of
 and Securities, sale of, abroad, 228
 Shortage, 35

- Currency (*contd.*)
 Stabilisation, 53, 93 *seq.*, 101, 230
 Tendencies, French and Belgian, 159
 Customs Duties, 157
 Frauds, connived at, 79
 Czecho-Slovakia, 74, 240, 242, 259
- DAIMLER Petrol Engine, 5
 Danube, the, 89
 Dawes Scheme, 39, 101, 107, 114
seq., 162, 167, 230, 253, 254
 Death Duties, British, 109
 Debt, National and Local, 67, 108
 Deflation, 53
 Democratic Party, 19-20
 Departmental Legislation, 138 *seq.*
 Dependants, Pensions for, 213, 214, 216-17
 Deutsche Werft Motorship Contract, 238-9
 Diesmann, —, 128
 Disablement Insurance, 214, 217
 Dismissals, 102
 Dog Tax, 112-13
 Double Insurance, 215
 "Drang nach Osten, Der," 199
 Duisberg, Privy Councillor, *cited*, 67
 Dumping, 143, 253, 254
 Dunker, Franz, 127
 Düsseldorf, Steel Workers' Wages and Hours, 121
 Dye and Chemical Cartel, the, 147
 Dye-industry, 5, 145 *seq.*
 Dye Regulation Bill (British), 146
- ECKHARDSTEIN, Baron, 210
 Economic Conditions, 22, 24
 in 1924, Anomalies of, 106-7
 Crisis, post-inflation, 99
 Party, 18-19
 Policy pre- and post-war, 5 *seq.*, 29 *seq.*, 95 *seq.*
 Progress, pre-war, 2 *seq.*, 255
 Educational Methods, 3, 222 *seq.*
 Eisenach, 61
 Electric Cable Industry, British, 261
 Generating Stations, 190-1, 193, 263
 Motive power, 148, 239-40
 Overhead Transmission Line, 201-2
- Electrical Inventions, development of, 5
 Manufacturing concerns, 252
 Electricity Supply Undertakings, 200 *seq.*, 239
 Control of, 180-1
 Electrification of transport, 7 *seq.*, 148, 192-3, 239
 Embassies and Industrials, 5
 Emigration Transport, 154-5
 Employees, Insurance of, 213, 214
 Employees' Trade Unions, 129 *seq.*
 Employers and Employed, relations between, 119, 126, 131, 134 *seq.*
 England as arbiter of Peace or War, 246
 Entertainment Tax, 113
 Erfurter Programme, the, 20
 Erkelenz, —, 20, 129
 Erzberger, Herr, 27-8, 210
 Essen, 56, 124
 Excess Profit Duty, British, 14
 Exports and Export Trade, 77 *seq.*, 94, 111, 144, 155 *seq.*, 252
 Organisation and Regulation of, 155 *seq.*, 234-5
 Reparations and, 39
 Science and, 225
 Statistics, 159, 253-4
- FACTORY Workers' Union, 128
 Federated Trades Unions, on Labour Aims, 124
 Federation of German Trades Unions, 130
 Federation of German Workers, Employees, and Civil Servants, 131
 Finance, and Financial Policy Pre-, during, and Post-War, 26 *seq.*, 30, 32, 33 *seq.*, 101
 British, and Industry, 249, 250
 Finance Ministry, the, 104
 Financial Stability, imperilled, 49
 First International Exhibition, 1851, 3
 Fiscal Policy, Post-War, 16 *seq.*
 Economic Results, 55 *seq.*
 Post-Inflation Period, 95 *seq.*, 119 *seq.*
 Food Consumption, 23

- Food (*contd.*)
 Difficulties, 211-12, 230
 Imports, 67, 78, 159, 226
 Prices, 72, 119-20
 Control of, 142
 Products, *see* Agriculture
 Foreign Exchanges, 101
 Foreign Firms, Germans in, 3-4
 Relations, Economic Results on,
 of Inflation, 37 *sqg.*
 Trade, *see* Exports
 Forests, 88
 France, *see* Iron output, 175
 and Germany, relative Pro-
 ductiveness of, 91, *table*,
 92
 Trading Agreements, 161, 172
 Free Trade Unions, 128
 Freights, 65, 87
 French Propaganda in occupied
 Germany, 164-5
 Troops, German attitude to,
 163 *sqg.*
 Friendly Societies, 219
- GAMBLING, 5
 Gas Apparatus, 5
 Gelsenkirchen Blast furnaces, 174
 General Association of Free Em-
 ployees, 130
 General Federation of German
 Employees' Unions, 130
 General Union of German Trades
 Unions, the, 128
 German-Democratic Economic
 Meeting, Eisenach, 61
 German-Dutch Agreement of Oct.
 1921, 143
 German Dye and Chemical Cartel,
 the, 147
 German East-Africa Line, 150
 German-French partnerships, Saar
 Steel Works, 174
 German National Union of Clerks,
 139
 German Triumph, results of, 211
 Germany, Travel Impressions in,
 209 *sqg.*
 "Getreideumlage," the, 142
 Giesberts, —, 129
 Glockner, Peter, 61
 Gold, stock held, 1923, 35
- "Goldbestand," the, 100
 Gothein, Dr., on Under-produc-
 tion, 64 *sqg.*
 Government, *see also* Administra-
 tion
 Departments dealing with In-
 dustrial Question, 138 *sqg.*
 Stock, 49, 50
 Grain Crops, 70 *sqg.*
 Groener, General, 180
- HADIR, 174
 Hamburg Conference, 40
 Hamburg-Amerika Line, 3, 40,
 153-4
 Heavy Industries, Representation
 of, 17
 Helfferich, Herr, 210
 on Germany's Wealth, 93
 on the Merchant Marine, &c.,
 85, 86
 Hertz, Dr., on British and German
 Budgets, 108 *sqg.*
 Hindenburg Election, 117
 Hirsch, Max, 127
 Hirsch-Dunker Trade Unions, 127,
 129, 136
Horizontalaufbau, 258
 Hours of Work, 39, 53, 55, 107,
 120, 121, 123, 141, 220-1,
 236
 House-industries, 148
 House Rent Tax, 112
 Housing Conditions, 211
 Hue, —, 128
 Hydro-Electric Energy and Plant,
 193, 197, 201, 202
- IMMIGRATION, 63, 69, 91, 126
 Imperial Preference, British, 251
 Imports, 81, 90, 99, 155-6
 Statistics of, 80, 159, 253-4
 Income Tax, 45-6, 109, 111, 222
 Increment Tax, 113
 Independent Social Democratic
 Party, 20
 Industrial Administration
 Post-War, 16 *sqg.*
 Pre-War, 3 *sqg.*
 and Agricultural Workers, ratio
 between, 126
 Disputes (*see also* Strikers), 133

- Industrial (contd.)**
Magnates and Inflation 33-4, 44, 49, 200
Representatives, 16 *sqg.*
Shares, and Loans, 179
Situation, Crux of, 125
Supremacy, 38, 39, 232-3
Industrialists, Benefited by Inflation, 33-4, 42 *sqg.*, 49, 200, 226, 229
Government backing of, 3, 5, 21 *sqg.*
Industry, Industries
Banks and, *see* Banks
Coal-starved, 75
Domestic Investments in, 77
Heavy, Representation of, 21
House, 148
in Inflation Period, 33 *sqg.*, 42
National Union of, 13
in Post-Inflation Period, 95 *sqg.*
War Policy regarding, 14, 96
Taxation as affecting, 107 *sqg.*
Inflation Policy, Objects and Results of, 29 *sqg.*, 42 *sqg.*, 54, 55, 95, 213
Progress of, 34 *sqg.*, *table*, 34, and End of, 98
Insurance, Social, 213 *sqg.*
Interest, effect on, of Inflation, 43, 44, 45, 51, 52, 105-6
International Association of Electric Lamp Manufacturers, 212
Intimidation, 127
Inventions, Foreign, development of, 5
Investor, Private, losses of, 43, 47, 106
Iron Imports, 176
Production, 55-6, 65, 68, 76, 94, 172 *sqg.*
Sources, 72, 90, 176
JUGO-SLAVIA, 199-200, 240
Junkers, the, 26
KLINGENBERG, Prof., on Water-power resources, 191
Koch, —, 20
Krankenkassen, 213
Krupp's, 3, 55, 135, 177
LABOUR, see also Wages
Present political aims of, 20, 124
Difficulties (see also Strikes, and Under-production), 72
Malcontents, Party of, 21
Members of the Zentrum, 19
Party, creation of, 136
Landbund, the, 18
Land ceded, 23, 69, 74, 188, 242-3
Land-Workers, 129
Land-Workers' Union, 128
Languages, knowledge of, 4, 10
Lansburgh, Dr. Alfred, Inflation, and Reparations, 37-8
Law, Rt. Hon. Bonar, scheme of, 167-8
Leipart, —, 128
Leverkusen Chemical Works, 67
Lignite, 73, 74, 89
Live-stock, 226, 227
Reparations, 73, 86
Living, reduced standard of, 22, 39, 53, 107, 212
Loan Flotation, 101
Loans to Central European Allies, 84
Conditions for, 66
Short term, 14
British, 7, 9, 106, 114, 162, 178-9
Contingent advantages, 247, 250 *sqg.*
Foreign, 103, 105-6, 114
Local Companies, 9-10, 252, 255-6
Requirements, meeting of, 101, 255
Locomotive Works, 234-5
Locomotives, 182, 234-5
English-built, 3
Reparation, 182, 235
London Conference, 101, 107, 114, 116
Lorraine, Mines and Works of, 72, 172 *sqg.*
Lubersac, M. de, 6
Luxembourg, 76
Luxury Consumption, 227-8
Luxury Tax, 111
MACHINERY Trade, 97
Machtspolitik, 210
Majority Social Democrats, 20, 22

- Management Committees of Con-**
bines, 10-11
Manufactured Goods, Exports and
Imports of, 82, 99
Manufacturers (see also Indus-
trialists), Flexibility of,
4, 10, 255
Present Policy for, and Position
of, 160
Taxes on, 110 sqq.
Mapures, Artificial, 72, 88
Märk, Fall of (see also Cur-
rency, and Inflation), 26,
29-30 sqq., 49, 65, 78,
96-7, 183
Stabilisation of, 36, 44, 98 sqq.,
107
Results, 212-13, 227, 236-7
Marxism, Parties tinged with, 17,
19 sqq.
Material, Economic use of, 237
Meat Consumption Statistics, 231
Mecklenburg Party, 17
Medical Benefit, 216, 217
Mentality, 3 sqq., 15, 154, 210, 247,
265
Mercantile Marine, Statistics, 12,
94, 148 sqq., 161
Value of Ships lost, 85
Merchants, mode of Life, 5, 265
Metal Workers, 129, 132
Metal Workers' Union, 128
M.I.C.U.M. Agreement, 172, 176
Middle Classes, Party Represent-
ing, 18-19
Ruined by Inflation, 43 sqq.,
211-12, 222
Mineral Wealth, 88-90
Miners, 129
Minette, 175, 176
Mining Industries and Christian
Trade Unions, 19
Ministry of Labour, 132, 240
Ministry of Transport, scope of,
180 sqq.
Mint, the, 103
Monarchist views and Parties, 17,
19, 24, 25, 210
Money votes, reckless, 36-7
Mortgages, 43-4, 99, 117
Mortgages Valorisation Bill, 117-18
Moscow, and German Communist
Party, 21
Motor Industry Organisation, 234
Müller, Dr. August, on Under-
production, 57-8, 68
Müller, Prof. Oscar von, on Water-
power resources, 191
Municipal and District Taxation,
112
NAPOLEON I., 171
National Debt, British, and Taxa-
tion, 108
National Liberal Party, 21
National Socialist Party, 17
National Volkspartei, 17
National Wealth, 87 sqq.
Pre-War, 92-3
Naumann, Friedrich, 129
New Enterprises, Financing of,
6 sqq.
New Issues, 1922, table, 49
New Rich, the, 229
Nitrogen Works, Oppau, 147
Nord Deutscher Lloyd, 3, 149,
150
North German Lloyd, 149, 150
"Notenumlauf," 100
OCCUPATION, the, 26
Armies of
Economics of, 166-7, 169-70
Social aspect of, 162 sqq.
Results of, 169-70 sqq.
Occupation Census, 126
Official Statements (German) on
Reparation payments
(tables), 83-4
Oil, extended use of, 243, 263-4
Old Age and Invalidism, Insurance
against, 214
Old-age Pensions, 213
Oppau, Nitrogen Works at, 147
Optical Goods, 143
Order, Maintenance of, 22
Otto Gas-engine, 5
Out-of-Work Relief Statistics, 236
Out-put (see also Over-production,
Production, and Under-
production), in relation
to Hours of Work, and to
Piece-work, 123, 237
Over-production, Avoidance of,
258 sqq.
of Coal, 243-4, 245

- Overstaffing, 28, 56, 58, 59, 60, 64, 183
- Overtime, 61, 62, 121-2, 123, 237
- Pacifist Party, 20
- Partly-Manufactured Articles, Imports of, 81, 159
- Peace of Westphalia, 171
- Peasants and Inflation, 43, 229
- Peat, 191
- Penetration, French (alleged) policy of, 171
- Pensions, 216 *sqq.*
- Perkin, Sir W. H., 5, 145
- Physical Resources, 87 *sqq.*
- Piece-work; Output, 123, 237
- Pig-iron output, French, 175
- Pigs, 73, 227
- Plant, modern, 6, 7, 77
- Poland, 23, 63, 74, 240, 241-2
- Polish frontier problem, 245-6
- Political Ignorance, general, Pre-War, 25
- Political Parties, 17 *sqq.*
- Pomerania, 69
- Population, 63, 69-70, 91
- Working, 126
- Ports, Central Control of, 28, 180-1
- Tariffs, 158
- Postal Service, 28, 64
- Potash, 90
- Potato-crops, 70, 71, 226
- Poverty (*see also* Middle Classes, and Trade Unions), 22, 99
- Preponderancy, re-establishment of, 91, 247
- Present Position: Causes summarized, 92
- Preuss, Dr., on Trade Policy, 157-8
- Prices, Control of, 63, 140, 142
- Domestic, 79
- Export, 236
- Fluctuations of, 43, 45, 48, 51, 65, 100, 110, 120, 230
- Production (*see also* Over- and Under-production), 67, 68, 122-3
- Consumption in relation to, *see that head*
- Costs, cheapening of, 160
- Property, Taxes on, 108-9, 113, 116-17
- British, 108
- Prosperity during Inflation, 33, 43, 101, 229, *et alibi*
- Pre-War, 92-3
- Protection, 157
- Prussia, East and West, 69, 72
- Public Services, condition of, 28-9, 64 *sqq.*
- Purchasing Organisations, 233-4
- Purchasing Power of Present Wages, *see under* Wages
- World's, 254, 260
- QUESSEL, Ludwig, on the Eastern frontier question, 245-6
- RADICAL Trades Unions, 127
- Railway(s), 3
- Administration, Unification of, 28, 32, 180
- Construction, 87
- New, 191-2
- Deficit, 183
- Duties, 157, 158
- Electrification of, 192-3, 239
- Freight carried, 186 *sqq.*
- Rates and Tariffs, 3, 109 *n.*, 184, 243
- Fuel-consumption, 184
- Locomotives, *see that head*
- Mileage, 186
- Operating Conditions and Costs, 182, 185, 187
- Output on, 183-4
- Overstaffed, 64, 183
- Passenger fares, 184
- Pensions, Wages, Allowances and Salaries, 185, 204
- Profits, 65
- Service, 28, 239
- Strike, recent, 124-5
- Traffic, 67
- Percentage of, 185
- Railway Workers' Union, 128
- Rand, the, Power Stations on, 8
- Raw Materials
- Home-found, 73 *sqq.*
- Imported, 67, 81, 90, 99, 159
- Rechts-partei, 18
- Redange-Dilling Steel Works, 173
- Reichsarbeiter-ministerium, the, 138, 241
- Reichsbank, the, 36, 39, 100, 103, 104

- Reichsbank (*contd.*)
 *Gold Stock of, 85
 Present Policy of, 234
 Reichs Commissioner for Import
 and Export Concessions,
 138
 Reichshandelsministerium, the,
 138, 139 *sqq.*
 Reichskohlenrat, the, 140
 Reichskohlenverband, the, 140
 Reiff's Statistical Department,
 135
 Reichsverband der deutschen Indus-
 trie, 13
 Reichsversicherungsanstalt, Insur-
 ance in, 214
 Reichswirtschaftsrat, the, 139,
 140
 Reich Taxes, 112
 Rentenbank, the, 102, 103
 Rentenmark, the, 98 *sqq.*, 101, 217,
 218
 Rents and Rent Control, 44-5, 51,
 227
 Reparation Bonds, 116
 Reparations, 26, 67, 124, 241
 Payments
 Attempt to Evade, 30
 Cash, 86
 Coal, 65, 140, 141-2, 186-7
 Capacity to meet, 42, 115
 Dawes Scheme for, *see that*
head
 in Kind, 73, 86, 235
 Law's Scheme for, 167-8
 Statement on, of
 German officials, 83 *sqq.*
 Reparations Commission, 84
 Republican Party, 20
 Retrenchment, 102
 Revenue and Expenditure, Post-
 war, 39
 Revenue Laws, new, 32
 Revolution of 1918, 30
 Revolutionaries, making of, 22,
 51
 Revolutionary upheaval, prospect
 of, 22, 129
 Rheinbund, the, 171
 Rheinische Stahlwerke Duisberg-
 Meiderich, Report of,
 on Under-production, 55,
table, 56
 Rhine-Danube waterway, 89-90
 Rhine, the, and the Rhineland,
 French Occupation of,
 and Interest in, 161,
 166-7, 171-2
 Rhineland and Westphalian Dis-
 tricts, Wages in, 123-4
 Rhine Province, 69
 River Transport, 87, 89-90, 194-5
 Road-building, 87
 Road Motor traffic, 189-90
 Rolling Mill methods, 256
 Rombas Blast-Furnaces and
 Foundries, 173
 Ruhr District, Coal and Coke of,
 75-6, 175, 176, 243
 French Occupation of, 26, 37,
 141-2, 161, 167 *sqq.*, 175,
 176
 Russia, 22, 89
 SAAR District, French Steel Works
 in, 174
 Mines in, 85-6, 188
 Salaries, 65, 102
 Savings, and Savings Banks, 50
 103, 105, 213, 231
 Schacht, Dr., present Policy of, 23
 on Foreign Loans, 105-6
 on Savings, 105
 on Tariffs and Reparations, 39
 Schlicke, —, 128
 Schmickel, Max von, 153, 154, 155
 Scientific Instruments, Prices of,
 143-4
 Seamen, 155
 Secret Societies, 241
 Seehandlung Golddiskontbank,
 the, 104
 Selling Organisations, 234
 Shareholders, &c., and Inflation,
 43, 47
 Sheep, 73
 Shipbuilding Industry, 120, 148
sqq., 161
 Shipping, *see* Mercantile Marine
 Lines (*see also under Names*), 4
 Subsidies to, 148 *sqq.*
 Sickness Insurance and Benefits,
 213, 218
 Siemens, C. V. von, on Under-
 production, 61
 Siemens-Martin Works, 55, 122

- Siemens-Schuckert** concern, 47, 122-3, 135
- Silverberg, Dr.**, 64
- Skilled and Unskilled Workers**, 67
- Wages of, 123-4, 227
- Slaughtering**, 73
- Social Conditions**, 209 *sqq.*
- Social Democrats**, Parties representing, 20-1
- Social Export Duty**, the, 156
- Social Welfare**, expenditure on, 109
- Socialism** in the Reichstag, 20 *sqq.*
- Workers' attitude to, 24-5
- Socialist Party**, Trade Unions of, 127-8
- Socialist Views**, on the Government, 22-3, and on Taxation, 110
- Sozialistische Monatshefte*, 245
- Standing Charges**, Reduction of, 255
- State Intervention in Labour Disputes**, 133
- Steamers**, British-built, 3
- Steel Industry**, 2, 3, 121-2, 173 *sqq.*, 238
- Production, 68, 76, 94
- British, Conditions affecting, 176, 177-8
- Stegerwald**, —, 23, 128, 129
- Steinmann-Bucher, Herr**, on Pre-War National Wealth, 92-3
- Stinnes, Hugo**, 26, 29, 265
- on Overtime, 61, 62
- Stinnes-Lubersac Agreement**, 61
- Stocks held**, 94
- Stresemann, Dr.**, 18
- Strikes**, 65, 66, 124-5, 127, 131, 134 *passim*.
- Students**, 222 *sqq.*
- Openings for, 225
- Subjects taken by, 223-4
- Sugar Export**, 79
- Sugar-production**, 72, 226
- Supplementary Estimates**, 36-7
- Surplus**, 102
- Syndicalist Bodies**, 129
- TARIFFS**, 3, 156, 158-9, 160, 226, 240
- Taxation**, 26, 30, 31, 45-6, 51, 107-8, 109, 110-11, 112, 113, 222, 233, 241
- Taxation**, Central Control of, 27-8, 32
- and Inflation, 44, 45, 46, 102
- Levying and Collecting, 110 *sqq.*
- Revision of, 113-114, 116
- British and French, 241
- Textile Workers' Union**, 128
- Thionville Steel Works**, 173
- Third International**, campaign of, 22
- Thomasmehl**, 72
- Thyssen's Works**, 174
- Tinplate**, 144, 240
- Town Workers**, conditions among, 227
- Toy Export**, 144
- Trade Balances**, 158
- Trades Council Law**, 134
- Trades Regulations Act**, 127
- Trades Unions** (*see also under Names*), Association of, 129
- Deputies, 135
- Leaders, views of, 23-4, 25
- Liberal, 131
- Membership of, 126, 128
- Parties in, 227 *sqq.*
- Poverty of, 124, 125, 136
- Present position of, 136
- Rights of, and Restrictions on, 127
- Syndicalist, 129
- Transport**, 87
- Electrification of, *see that head*
- Resources, 191
- System, 180 *sqq.*
- Transport Workers' Union**, 128
- Troops**, Limited number of, 22
- Trust Companies**, British, 248
- Turnover Tax**, 108, 110-11, 233
- UCKANGE Steel Works**, 173
- Umbreit**, —, 124
- Undercutting**, 5
- Under-production**, 52 *sqq.*, 63, 65 *sqq.*, 92, 98, 119, 122, 141, 142
- in England and France, 76-7
- Underselling**, 236
- Unemployment**, 22
- Percentage of, 236
- Unemployment Benefit**, 219

- Unemployment Care Committee 219
 Union of Employers and Employed, 129
 Union of Free Workers, 129, 131
 Unions of Employees, 130-1
 United Social Democratic Party, 20-1
 United States of America, Loans from, 106
 Unproductive Workers, 67
 Upper Silesia, Cession of, 23, 69, 74, 138, 242-3
 Coal of, *see under* Coal
 Zinc deposits, 90, 244
- VALORISATION Societies, 147, 118
 Valuta Traffic, 186
 Versailles Treaty, 40-1, 54, 115, 126, 140, 152 *passim*, 166, 240
 Victoria Falls Power Co., 8
 Vital Statistics, 91
 Volkspartei, Bavarian, 19
 German, 18, 26
 National, 17, 21
Vossische Zeitung, 20
- WAGES, 53, 65, 102, 107, 118, 119 *seqq.*
 Average, 236
 Purchasing Power of, 110, 119-20
 Rates per Hour, 120
 Ratio of, to Output, 53, 110, 122
 Real, 120
 of Skilled and Unskilled Workers, 123-4, 227
 French and Belgian, 159
 Wages Tax, 108, 111, 121, 122
 War, Dyes, and Chemicals, 145 *seqq.*
 War Finance, 30
 War Guilt, 210
 Waterpower, 191, 243, 263
 Waterways, 81, 189, 193 *seqq.*
- Wealth, Distribution and Redistribution, of, 46, 50
 Pre-War, nature of, 30
 of Nations, 87
 Wehrverbände, the, 17
 Wendler, Dr., on German and British Commercial Methods, 264-5
 Wheat, 70, 72
 Wirth Government's policy, 22 *seqq.*
 Wirtschaftskurve, Die, 66
 Wissel, —, 128
 Wolff, Theodor, 19
 Women in Industry, 219-20
 Wood-prices, 144-5
 Woolcombers and Spinners: Taxation and Freight Statistics, 109 *n.*
 Work, German attitude to, 3 *seqq.*, 91, 99, 137, 265
 Workers (*see also* Skilled and Unskilled, and Unproductive), Attitude of, to Monarchy and to Communism, 24, 210
 Workers and Employees, Dependents of, Insurance for, 213 *seqq.*
 Patriotism of, 26, 107, 125, 131 *seqq.*, 265
 Post-war, Life of, 211 *seqq.*
 World Trade, 94
 World's Coal demand decrease, 243, 263
 World's Demand, now to Stimulate, 255
 World's Markets and German Trade, 266
 World's Productive Power, 254, 260
 World's Purchasing Power, 254, 260
- "YELLOW" Trades Unions, 129
- ZINC, 90, 244

